0000006

SITE ASSESSMENT REPORT
FOR
J.E. BERGER SITE
DETROIT, WAYNE COUNTY, MICHIGAN
TDD S05-9602-023
PAN 6F2301SI

ecology and environment, inc.
International Specialists in the Environment

SITE ASSESSMENT REPORT
FOR
J.E. BERGER SITE
DETROIT, WAYNE COUNTY, MICHIGAN
TDD S05-9602-023
PAN 6F2301SI

August 31, 1996

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604

Prepared by: Cedric N. Gibson Date: 8-31-96
Cedric N. Gibson, START Project Manager

Reviewed and
Approved by: Sandra L. Basham Date: 8-31-96
Sandra L. Basham, Assistant START Program Manager

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABLES

1. INTRODUCTION

On February 29, 1996, the United States Environmental Protection Agency (U.S. EPA) tasked the Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) to perform a site assessment at the J.E. Berger (JEB) site in Detroit, Wayne County, Michigan. Tasks listed in the scope of work to be completed included: obtain and review existing site data provided by the U.S. EPA and/or state and local authorities; conduct site visit and document site conditions with written and visual documentation; assess site for immediate threat to public health or the environment, the potential need for a removal action, further investigation, no further investigation, no further action, state referral, and/or referral to other Federal Agencies or U.S. EPA programs; determine pollutant dispersal pathways and extent of contamination; develop a health and safety plan for field work; conduct polychlorinated biphenyl (PCB) sampling activities on site; schedule/provide for analytical support; conduct air monitoring; perform analytical data validation; and assess risks associated with the site. These activities were tasked under Technical Direction Document (TDD) S05-9602-023, and were performed at the JEB facility to evaluate the site's threat to human health and the environment based on Title 40 Code of Federal Regulations (CFR) 300.415, National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The START members (STARTMs) conducting the site assessment activities with U.S. EPA On-Scene Coordinator (OSC) David L. Anderson were Cedric N. Gibson and Sandra L. Basham.

2. BACKGROUND

2.1 SITE DESCRIPTION

The JEB site, located at 5300 Bellevue Street, Detroit, Wayne County, Michigan (Figure 2-1), was a facility that rebuilt large industrial motors and electrical control panels. The geographical coordinates for the site are 42°22'26.7" North latitude and 83°01'40.4" West longitude. The area of concern (AOC [5300 Belleville Street]) is a small portion of a series of interconnecting warehouses that were formerly part of the much larger Packard Automobile Plant. The JEB site is located in an urban residential/industrial area of innercity Detroit. The JEB site is bounded on the east by Concord Street, on the north by additional warehouses, on the west by the Michigan Opera Theatre Technical Center, and on the south by Frederick Street. Across these bordering streets are other industrial and manufacturing facilities, and urban residential areas (Figure 2-2).

2.2 SITE HISTORY

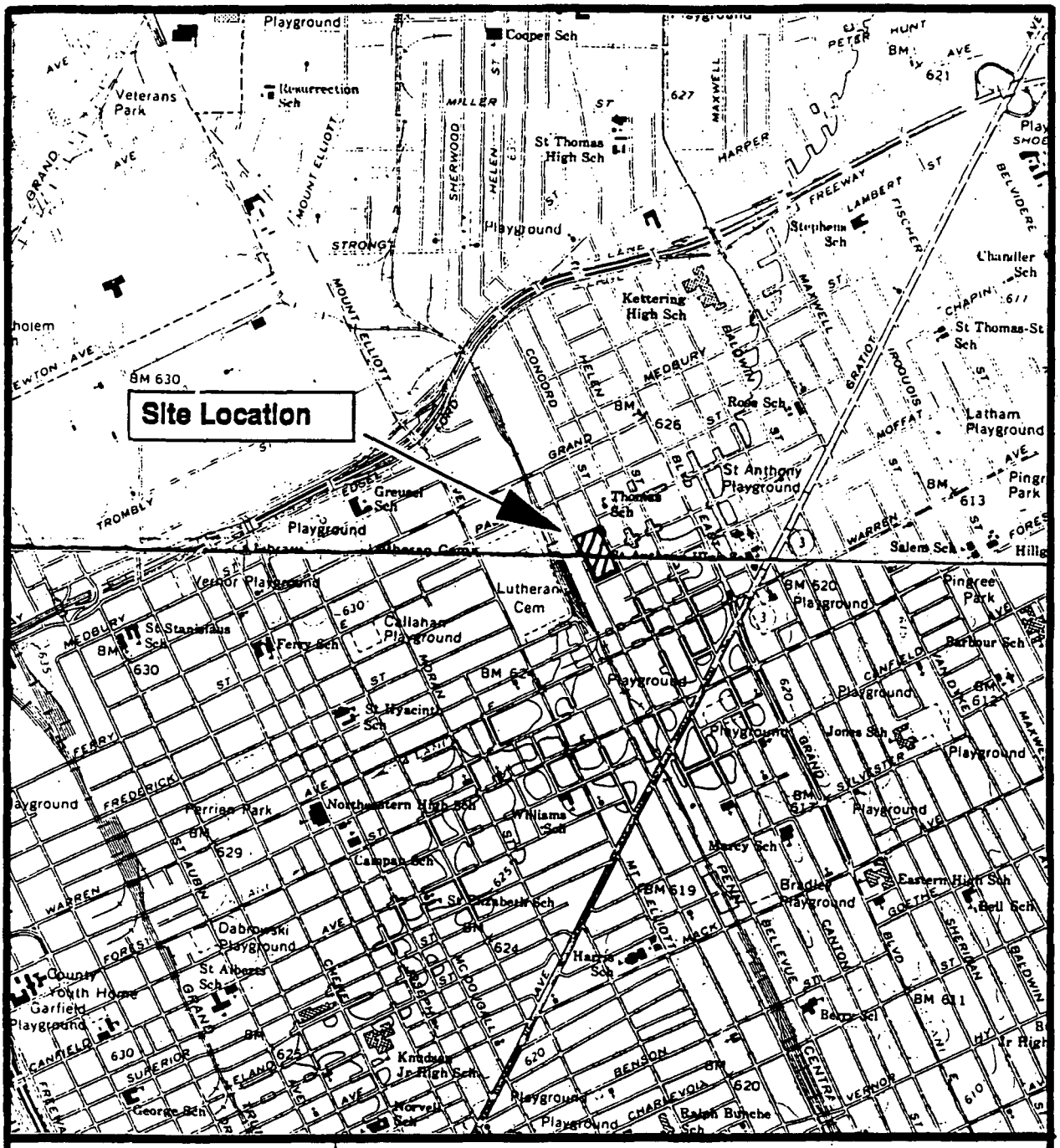
In the mid-1980s, the JEB site, known then as the Frederick Avenue PCB site, was the focus of an extensive PCB cleanup effort. The cleanup was monitored by the Michigan Department of Natural Resources (MDNR), and was conducted voluntarily by the J.E. Berger Corporation, which was operational at that time. The MDNR cleanup focused on PCB contamination that had been identified in soils in several lots near the buildings and in sediments found in nearby storm drains. In addition, the surfaces of several contaminated streets and alleys located

around the JEB building were addressed. MDNR files indicate that the exterior PCB cleanup was successfully completed in 1988.

In the process of arranging disposal of PCB-contaminated materials stored in the surrounding lots, the MDNR determined that wooden blocks that had previously comprised flooring inside the JEB building were contaminated with PCBs. In a letter to the J.E. Berger Corporation, dated March 20, 1987, MDNR suggests that J.E. Berger might need to extend their exterior PCB cleanup activities to the interior of the building. A letter to Berger from Michigan Department of Labor (MDOL) indicates that air monitoring was conducted in the operating Berger facility to determine levels of airborne PCBs. In addition, MDNR conducted PCB air monitoring outside the J.E.B. building. No exceedence of worker safety exposure levels was found, either inside or outside the building, and no other monitoring or sampling was conducted.

MDNR records indicate that, in response to the concern of PCB contamination within the building, pallets and drums of PCB capacitors and transformers were removed. The records also indicate that the building's loading docks were cleaned. There is no indication that the wooden block flooring, remaining in many places throughout the JEB building, was removed.

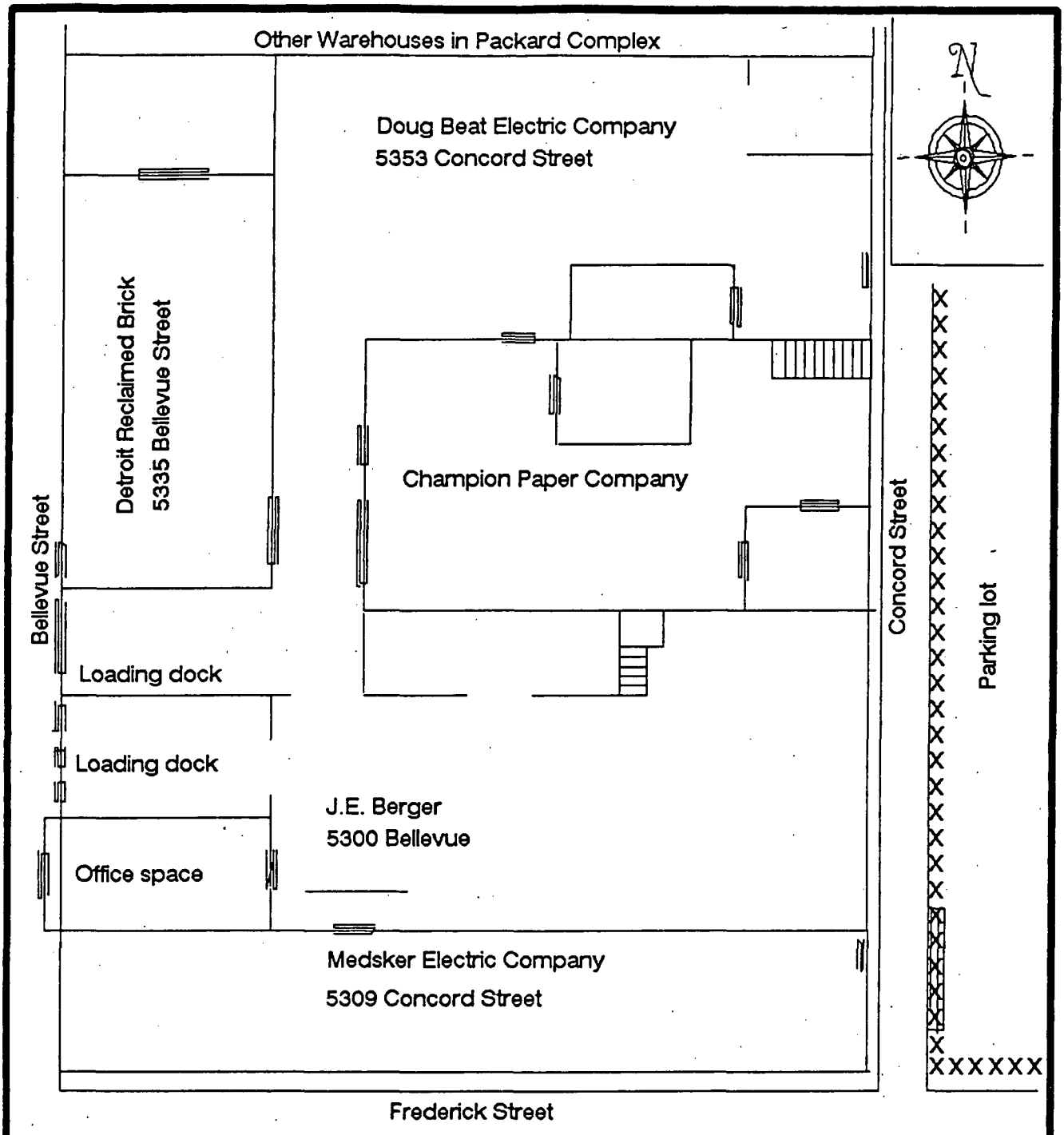
The JEB site came to the attention of the U.S. EPA Response Section 1 (RS1) through a referral from MDNR and the City of Detroit Brownfields Initiative group. The property had reverted to State of Michigan ownership after JEB ceased operations and fell into arrears on taxes. U.S. EPA was requested to assess the remainder of the property for PCB contamination and a potential Removal Action.



ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Site Location Map		FIGURE #: 2-1
SITE: J.E. Berger		SCALE: 1:24,000
CITY: Detroit	STATE: Michigan	TDD #: S05-9602-023

SOURCE/DATE
USGS Quadrangle 7.5 Minute Series
Detroit, MI 1981/Highland Park, MI 1983



LEGEND

Doors

Stairs

XXXX Fence

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Detailed Site Location Map	FIGURE #: 2-2
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023

3. SITE ACTIVITIES

3.1 SITE ASSESSMENT ACTIVITIES

On April 15, 1996, START members and U.S. EPA OSC David Anderson traveled to the site for the initial assessment. Access was gained to the 5300 Bellevue portion of the building from Bellevue Street on the west side of the facility. After gaining access to the building, STARTMs and the OSC began the assessment by conducting, in modified Level D personal protective equipment (PPE), an inspection of the inside of the building and the surrounding areas.

The inspection revealed that other businesses were renting space in the interconnected warehouse surrounding the AOC. To the north of the AOC, Detroit Reclaimed Brick, Inc., and the Champion Paper Company utilizes space for warehousing. North of Champion Paper, the Doug Beat Electric Company stores electrical motors. Immediately south of the AOC, the Medsker Electric Company warehouses large electrical equipment.

The roof of the JEB warehouse has several large holes with deteriorating sheet metal collapsing into the building. Areas of wood block flooring have been removed, revealing the underlying concrete and accumulated dirt. The blocks are placed in several piles throughout the building. There is a loading dock, two old excavators that appeared not to be in working order, and other debris in the bay area on the west end of the building. On the north side of the AOC, twenty-two 55-gallon steel drums were observed to be staged on pallets. Capacitors, found adjacent to the 55-gallon steel drums, were marked, "Caution; PCBs." A

stairway leading to second floor storage and shop areas is located along the north wall.

Once an initial assessment had been made of the site, STARTMs proceeded to collect samples for PCB analysis. Two samples, JEB1 and JEB2, were collected from the loading dock area. JEB1 was a sample of oily dirt and JEB2 was collected from an oil-soaked wood block. Two additional samples of oily dirt were collected, JEB3 and JEB 6. A second sample of oil-soaked wood block, JEB4, was collected from a pile of blocks centrally located in the warehouse. Two oil samples, JEB5 and JEB7, were collected. JEB5 came from a 55-gallon drum, and JEB7 was collected from a small capacitor found near the staged drums. Labeling on the capacitor noted in sample JEB7 was "General Electric - catalog #28F5126 FC, 25UF 600 VDC." A total of four wipe samples were collected from oil-stained surfaces: JEB8, from the north wall near the staged drums; JEB9, from the south warehouse wall; JEB10, from the west wall near an office door; and, JEB11, from the east face of the loading dock. Locations of collected samples are presented in Figure 3-1.

A fuel tank, approximately 500 gallons in size, was observed in the northwest corner of the building near the dock entrance. Six sections of an oven for the removal of insulation from wire were located in the southwest corner of the building. A heavy concentration of oily mud and dirt was apparent on the floors throughout the building. In the loading dock, a broken water pipe allowed water to run constantly into a drain, further saturating the soil. An adult dog was observed in one of the first level offices; apparently the dog lives in the building. The potential exists, as a result, for the dog to become exposed to any hazardous materials stored in the building.

On April 22, 1996, START members Tom Campbell and Cedric Gibson returned to the JEB site with OSC Anderson. The team gained access to an adjoining building, immediately south of the AOC, at 5309 Concord Street. This allowed access to a portion of the interconnected warehouse not inspected during the first

visit. STARTMs inspected the inside of the building and collected samples for PCB analysis. This part of the building was being utilized as storage for large industrial motors and electrical control panels by Medsker Electric Company. The maintenance of this area was much better than that of the warehouse inspected on April 15. The floor appeared to be reasonably clean, with the exception of several oil spills along the north and south walls about midway through the building; three wipe samples were taken from these areas. The samples collected were JEB12, taken from the north floor; JEB13, taken from the south floor; and JEB14, taken from the south wall. Sample locations are depicted in Figure 3-2.

The team next gained access to the recycled brick storage warehouse at 5335 Bellevue. Several pallets of bricks prepared for shipping were observed. The building appeared to be in fair condition, with one notable leak in the roof. STARTMs collected wipe samples in this area; one from the floor and one from the wall. The samples were JEB15, taken from the north floor, west of the garage door; and, JEB16, taken from the north wall, east of the garage door. Sample locations are depicted in Figure 3-3.

The next area sampled was 5353 Concord Street, another storage warehouse for industrial motors utilized by Doug Beat Electric Company. This area of the building was in fairly good condition; the only exception being a broken water pipe in an upper section of the building. The wipe samples collected were JEB17, taken from the south floor adjacent to the office; and JEB18, taken from the south wall below a large circuit breaker. Sample locations are depicted in Figure 3-4.

The team next entered a warehouse area used by Champion Paper to store plastic bags for recycling. This area of the building contained stacks of boxes holding different types and sizes of plastic bags. Wipe samples were collected from two locations in this area. JEB19 was taken from the south central floor area, and JEB20 was taken from the north central wall. Sample locations are depicted in Figure 3-5.

After returning to the AOC at 5300 Bellevue, STARTMs and the OSC went to the third level of the building to document and sample drums in that area. Thirteen 55-gallon steel drums and one approximately 20-gallon steel drum were found in this section of the building, along with other debris. Of the thirteen 55-gallon steel drums, five were empty. STARTMs collected samples from two drums stored along the south wall. A dark, thin liquid sample taken from a drum was designated JEB21, and an amber oil sample from a second drum was identified as JEB22. Sample locations are depicted in Figure 3-6.

Upon completion of the assessment and sample collection on the third level, a reconnaissance was conducted on the ground floor of the AOC to assess the staged drums identified during the April 15 site visit. The twenty-two staged 55-gallon drums were opened and several samples were collected. Two additional 55-gallon drums, one a steel drum and the other a poly drum, were located in the south central part of the building and were also sampled. The following samples were collected from the drums and containers staged along the north wall: JEB25, a thin, amber liquid/oil; JEB26 and JEB27, amber oils; and JEB28, a dark oil. Two samples were collected from drums staged along the south wall of the AOC. JEB23, an amber oil/water sample; and JEB24, a dark oil sample taken from the poly drum. Sample JEB29, a wipe sample, was taken from immediately outside the loading dock door. Sample locations are presented in Figure 3-7.

Several piles of debris, mounds of wooden blocks, and bins containing capacitors were found throughout the building. These were inventoried and measured in order to assess potential disposal options. Sketches were completed of all the warehouses in the complex, as well as measurements for each area.

On April 23, 1996, preliminary analytical data was received for the samples collected on April 15. The non-validated data indicated that areas of the JEB site were contaminated with PCBs at levels up to 840,000 milligrams per kilograms (mg/kg).

On May 6, 1996, OSC Anderson was notified by a past employee of the J.E. Berger Corporation that certain items stored in the building would be transferred offsite for storage elsewhere.

On May 7, 1996, STARTM Gibson and OSC Anderson visited the JEB site to inventory and photodocument the items that were to be removed from the site. The doors of the loading dock were open when the team arrived. Four men, who stated they worked for Mr. Tom Carter, were present to assist with the removal of the equipment and other items. OSC Anderson informed the men that preliminary analytical results had indicated that the building was contaminated with PCBs, and that they would be advised to wear PPE. The hazards associated with PCB exposure were also explained.

According to available information, Mr. Carter has no legal claim to the property through ownership or lease agreements. Mr. Carter arrived on site approximately one hour after the OSC and START. A large tow truck was used to place a forklift on the loading dock so that the heavier items could be moved from the building. Photodocumentation was completed of all items stored in the loading dock area.

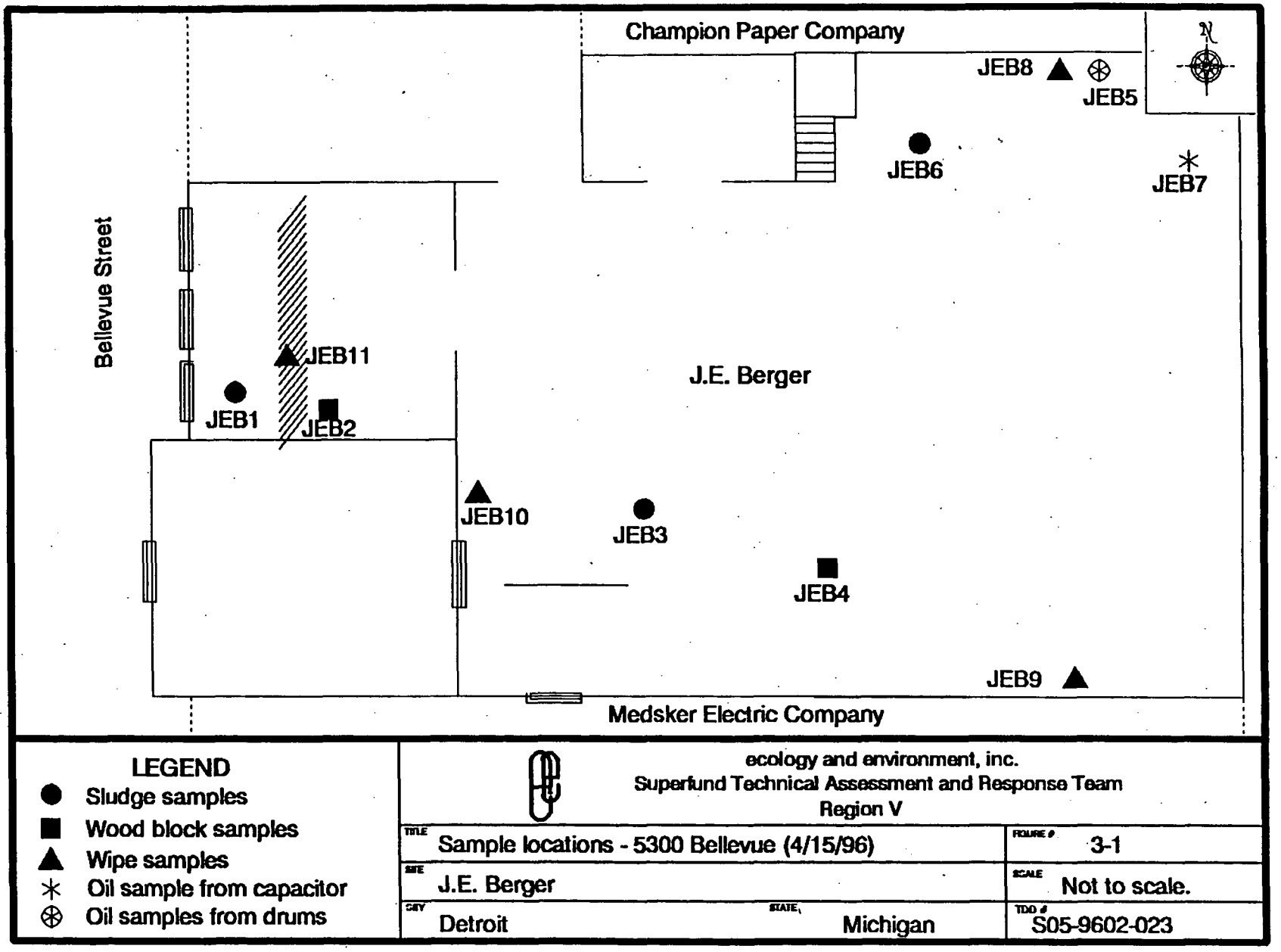
Upon the arrival of Mr. Carter, OSC Anderson and STARTM Gibson discussed the items to be removed from the site. Mr. Carter was notified of the PCB levels that had been found in the building and that personal protective equipment should be used to prevent chemical exposure. Upon departure from the site, OSC Anderson noticed what appeared to be increasing amounts of debris and rubbish, likely from illegal dumping, in the parking lot located at the northeast corner of Frederick and Concord Streets. The presence of this debris was photodocumented.

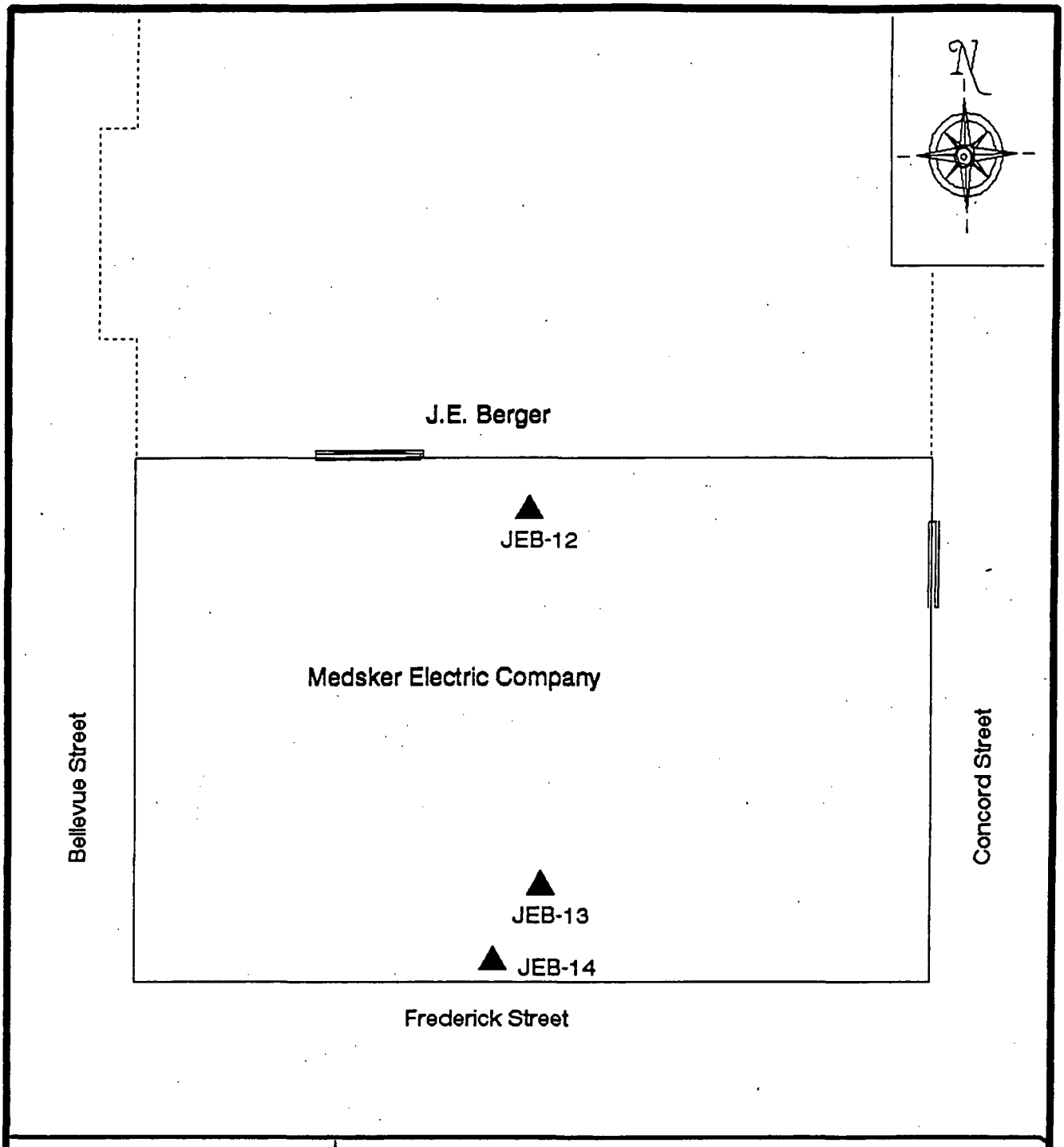
3.2 SAMPLING ACTIVITIES

As previously mentioned, samples were collected on two separate occasions from a number of locations throughout the main JEB warehouse and interconnecting warehouses. Samples JEB1 through JEB11 were collected on April 15, 1996, and shipped to

Heritage Laboratories, Romeoville, Illinois, on April 16, 1996, for PCB analysis. All analyses were conducted under analytical TDD S05-9602-813.

Additional samples were collected on April 22, 1996, and shipped to National Environmental Testing, Inc., Auburn Hills, Michigan, on April 23, 1996. A total of 18 samples, designated JEB12 through JEB29, were collected and all were analyzed for PCBs. In addition, JEB21, JEB23, JEB24, JEB25, JEB27, and JEB28 were tested for flash point. Samples JEB24 and JEB28 were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals and Resource Conservation and Recovery Act (RCRA) metals. In addition, sample JEB24 was analyzed for semivolatile organic compounds (SVOCs). Sample JEB21 was analyzed for volatile organic compounds (VOCs) and RCRA metals. Sample JEB27 was analyzed for RCRA metals. The second round of laboratory analyses was conducted under analytical TDD S05-9604-813.


Champion Paper Company
JEB8
JEB5
JEB6
JEB7
Bellevue Street
JEB11
J.E. Berger
JEB1
JEB2
JEB10
JEB3
JEB4
JEB9
Medsker Electric Company
LEGEND
Sludge samples
Wood block samples
Wipe samples
Oil sample from capacitor
Oil samples from drums
ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V
TITLE Sample locations - 5300 Bellevue (4/15/96)
FIGURE # 3-1
SITE J.E. Berger
SCALE Not to scale.
CITY Detroit
STATE Michigan
TDD # S05-9602-023



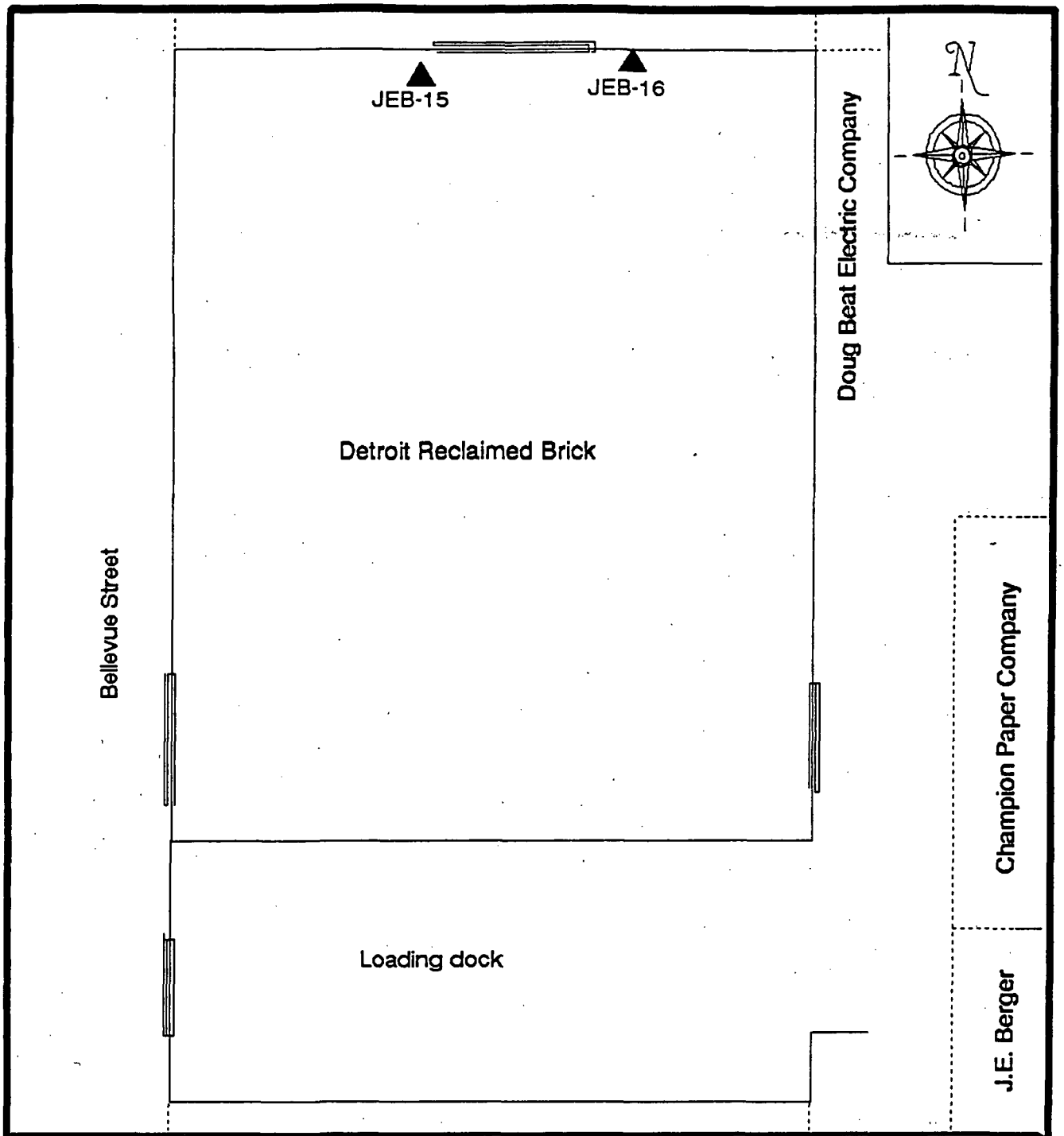
LEGEND

▲ Wipe sample

═══ Doors

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - 5309 Concord	FIGURE #: 3-2
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023



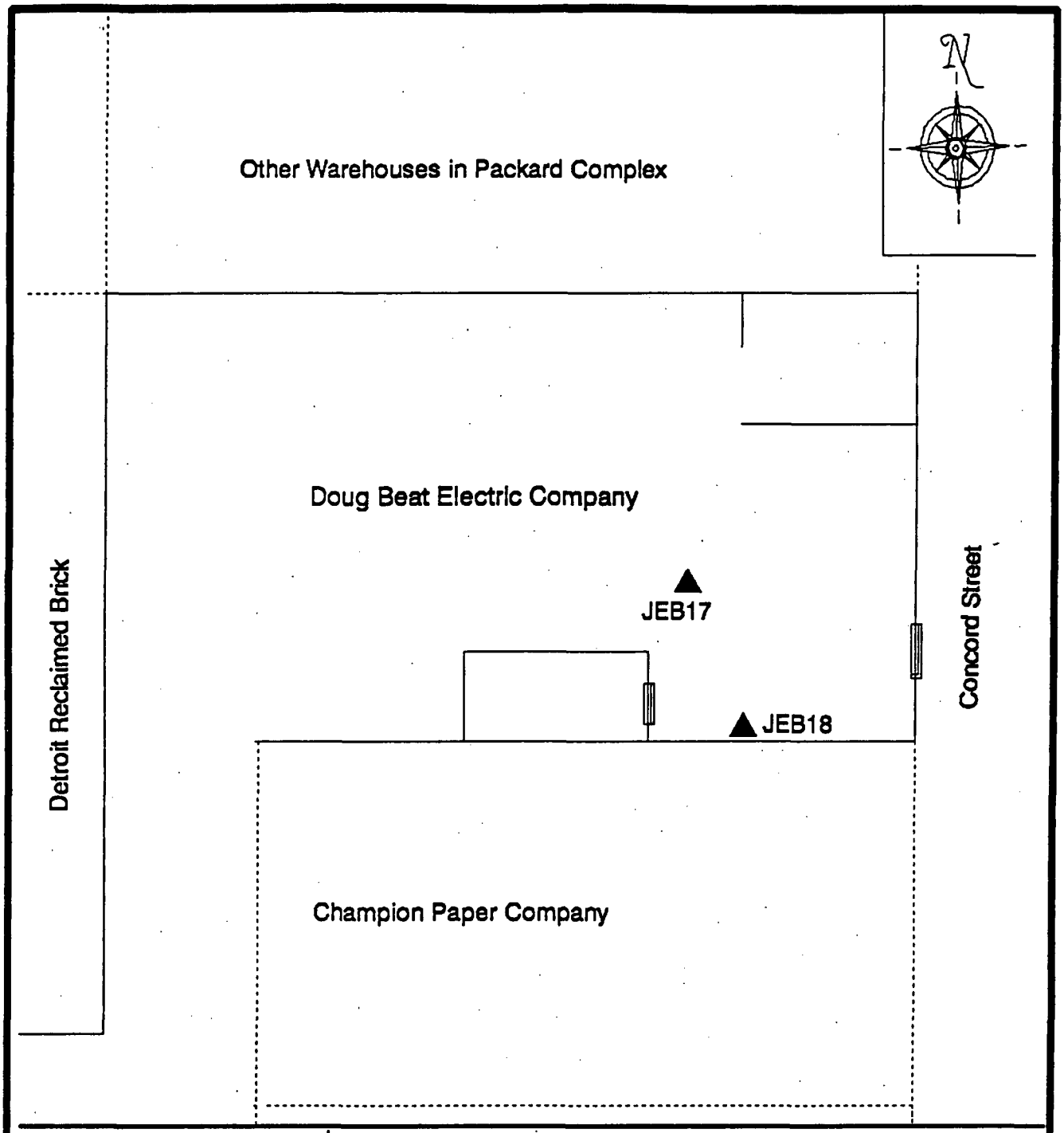
LEGEND

▲ Wipe sample

Doors

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - 5335 Bellevue	FIGURE #: 3-3
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023



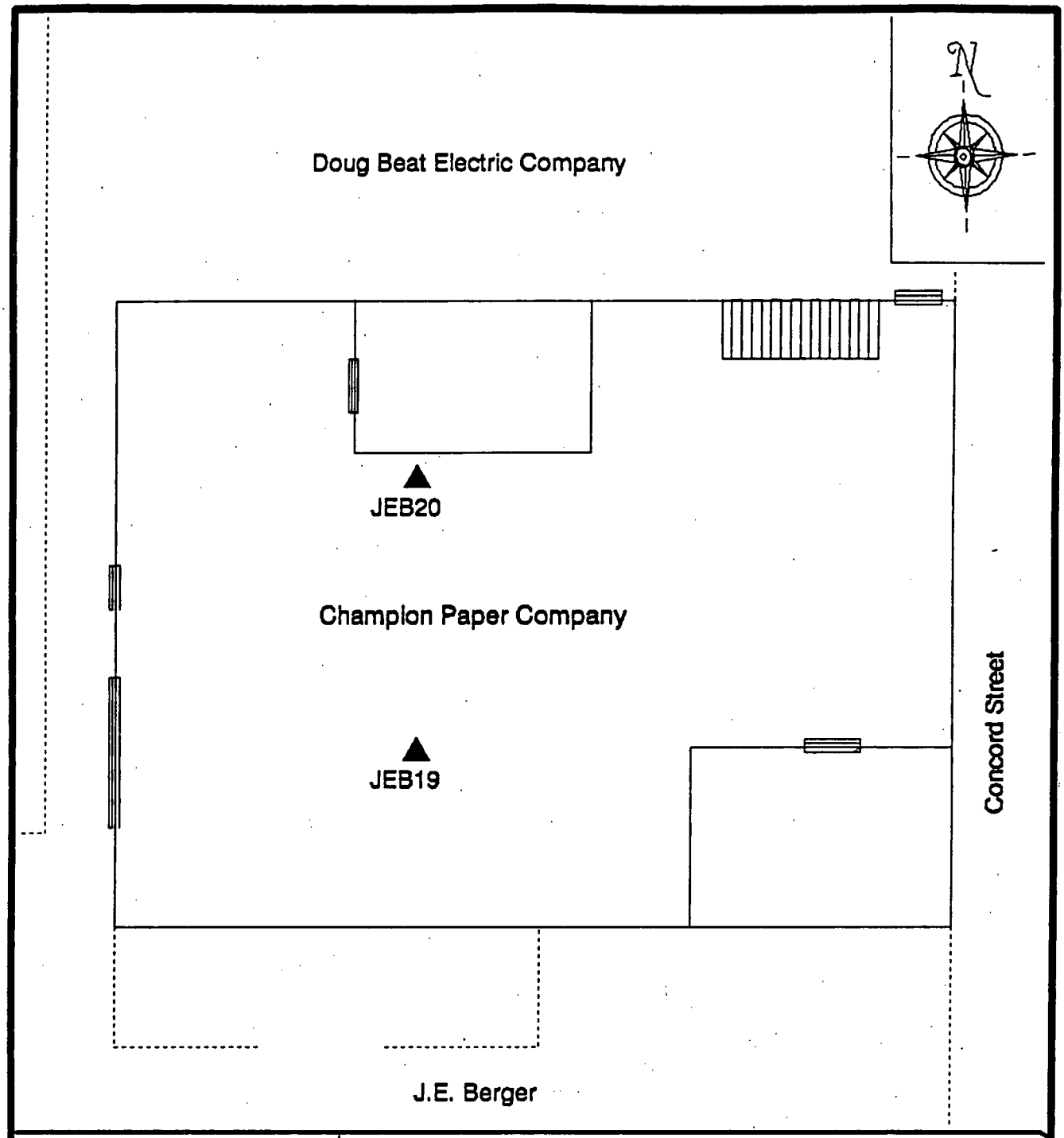
LEGEND

▲ Wipe sample

Doors

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - 5353 Concord	FIGURE #: 3-4
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023



LEGEND

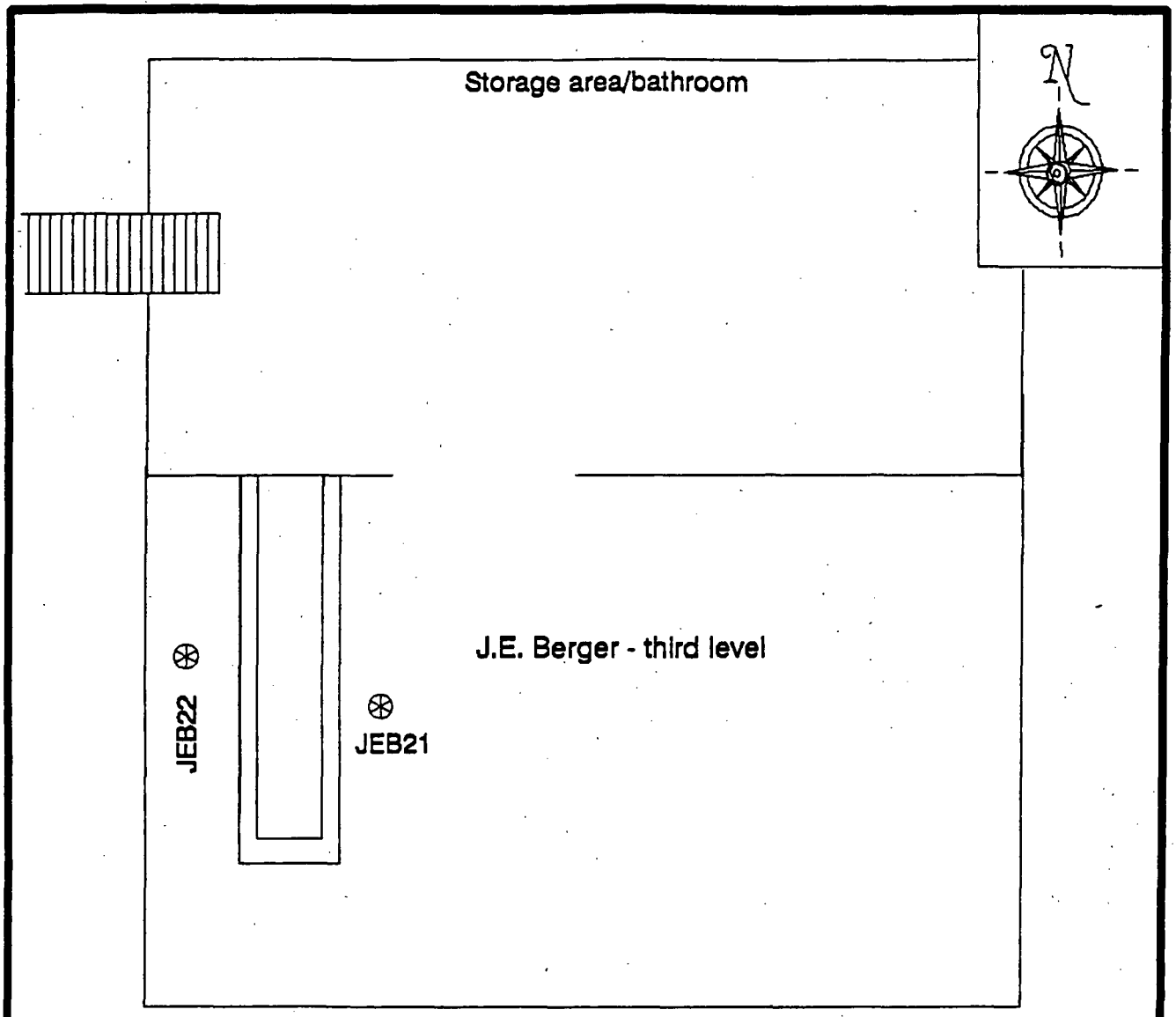
▲ Wipe sample

Doors

Stairs

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - Champion Paper	FIGURE #: 3-5
SITE: Champion Paper Company	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023



LEGEND

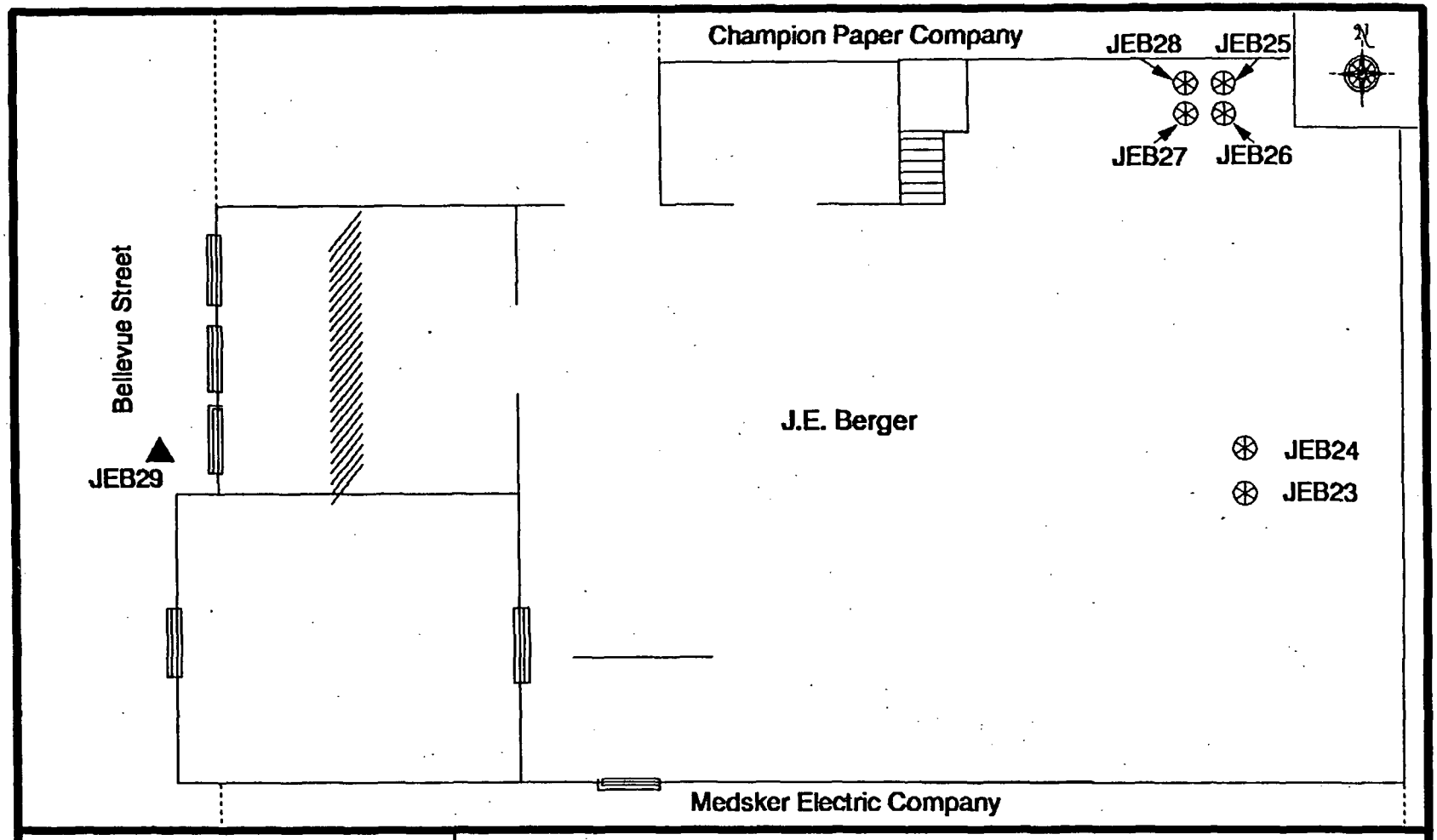
⊛ Oil samples from drums

Stairs

Guard rail

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - Third level	FIGURE #: 3-6
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023



LEGEND

- ● Sludge samples
- ■ Wood block samples
- ▲ Wipe samples
- ⊛ Oil samples from drums

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region V

TITLE: Sample locations - 5300 Bellevue (4/22/96)	FIGURE #: 3-7
SITE: J.E. Berger	SCALE: Not to scale.
CITY: Detroit STATE: Michigan	TDD #: S05-9602-023

4. ANALYTICAL RESULTS

On April 15, and April 22, 1996, U.S. EPA and START collected a total of 29 samples from the J.E. Berger property. A total of 10 waste oil/liquid samples were collected from drums, 5 soil/solids samples were collected from wood block flooring and underlying dirt-covered concrete floors, and 13 wipe samples were collected from walls, floors, and other surfaces throughout the building. Samples were analyzed in accordance with the U.S. EPA Solid Waste (SW-846) Method 8080 for the determination of PCBs; Method 8260 for the determination of VOCs; Method 8270 for the determination of SVOCs; Methods 6000-7000 series for the determination of RCRA metals, plus copper and zinc, and TCLP metals; and Method 1010 for the determination of flash point.

Samples JEB1 through JEB11 were collected on April 15, 1996, and shipped to Heritage Laboratories, Romeoville, Illinois, on April 16, 1996. Samples JEB12 through JEB29 were collected on April 22, 1996, and shipped to National Environmental Testing, Inc., Auburn Hills, Michigan, on April 23, 1996. Analytical results are presented in Tables 4-1 through 4-4. The analytical package and quality assurance review memoranda are presented in Appendix B.

Table 4-1

ANALYTICAL RESULTS FOR PCBs IN SOLIDS AND OILS
J.E. BERGER SITE
DETROIT, MICHIGAN
APRIL 15, 1996, AND APRIL 22, 1996

Sample Identification	Aroclor 1016	Aroclor 1242	Aroclor 1260
JEB1	< 5.0	5.0	56
JEB2	5.0	< 0.5	< 0.5
JEB3	< 50	390	1,000
JEB4	7.8	< 5.0	49.0
JEB5	< 1.0	< 1.0	4.0
JEB6	840,000	< 10,000	< 10,000
JEB7	810,000	< 10,000	< 10,000

Key:
All results presented in milligrams per kilogram.

"<" = Parameter below detection levels in sample.

Source:
Heritage Labs, 1319 Marquette Drive, Romeoville, IL 60441.

Table 4-2

ANALYTICAL RESULTS FOR PCB WIPE SAMPLES
J.E. BERGER SITE
DETROIT, MICHIGAN
APRIL 15, 1996, AND APRIL 22, 1996

Sample Identification	Aroclor 1016	Aroclor 1242	Aroclor 1260	Total PCBs
JEB8 *	1,200	< 100	< 100	NA
JEB9 *	700	< 100	< 100	NA
JEB10 *	190	< 10	97	NA
JEB11 *	< 10	< 10	< 10	NA
JEB12 #	NA	NA	NA	19
JEB15 #	NA	NA	NA	26
JEB17 #	NA	NA	NA	15
JEB19 #	NA	NA	NA	18
JEB29 #	NA	NA	NA	57

Key:

All results presented in micrograms per 100 square centimeters.

"<" = Parameter below detection level in sample.

NA = Parameter not analyzed in the sample.

Source:

* Heritage Labs, 1319 Marquette Drive, Romeoville, IL 60441.

NET Labs, 1700 Harmon Road, Auburn Hills, MI 48326.

Table 4-3

ANALYTICAL RESULTS FOR INORGANICS
J.E. BERGER SITE
DETROIT, MICHIGAN
APRIL 15, 1996, AND APRIL 22, 1996

Compounds	JEB21	JEB24	JEB27 Top	JEB27 Bottom	JEB28
TCLP metals					
Barium (mg/L)	ND	0.47	ND	ND	0.15
Cadmium (mg/L)	ND	0.02	ND	ND	1.8
Chromium (mg/L)	ND	ND	ND	ND	300
Copper (mg/L)	ND	0.17	ND	ND	48
Lead (mg/L)	ND	0.21	ND	ND	0.32
Zinc (mg/L)	ND	7.4	ND	ND	42
Total metals					
Barium (mg/kg)	1.8	4.2	18	0.64	1.0
Cadmium (mg/kg)	0.20	0.95	1.4	ND	540
Chromium (mg/kg)	ND	ND	1.9	ND	100,000
Copper (mg/kg)	0.83	22	48	0.41	16,000
Lead (mg/kg)	ND	14	670	2.3	25
Silver (mg/kg)	ND	ND	ND	ND	2.2
Zinc (mg/kg)	3.3	120	330	17	4,200

Key:
mg/L - Milligrams per liter.
mg/Kg - Milligrams per kilograms.
ND - Parameter not detected in sample above detection levels.

Source:
NET Labs, 1700 Harmon Road, Auburn Hills, MI 48326.

Table 4-4

ANALYTICAL RESULTS FOR ORGANICS
J.E. BERGER SITE
DETROIT, MICHIGAN
APRIL 15, 1996, AND APRIL 22, 1996

Compounds	JEB21	JEB24	JEB25 Top
Volatiles			
Ethylbenzene (mg/kg)	200	NA	NA
Methylene Chloride (mg/kg)	170	NA	NA
Xylenes (mg/kg)	2200	NA	NA
Semivolatiles			
Naphthalene (mg/kg)	NA	59	NA
Pyrene (mg/kg)	NA	40	NA
Miscellaneous parameters			
Flash point (°F)	130	>200	118

Key:

mg/Kg - Milligram per kilogram.

NA - Parameter not analyzed in the sample.

Source:

NET Labs, 1700 Harmon Road, Auburn Hills, MI 48326.

5. POTENTIAL THREATS

The site assessment and sampling at the JEB site were conducted to evaluate the threat to public health and the environment posed by the potential for imminent release of hazardous substances from the site.

Conditions at the JEB site present an imminent and substantial endangerment to public health, or welfare, or the environment based upon factors set forth in the NCP, 40 CFR Section 300.415 (b)(2). These factors include:

(i) **Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.** Samples of oils collected from drums and capacitors and of solids collected from soil and wooden floor blocks were determined to be contaminated with elevated levels of PCBs. Sample JEB3, a grab sample of oily dirt from inside the JEB building, was found to contain Arochlor 1242 at levels of 390 mg/kg and Arochlor 1260 at levels of 1,000 mg/kg. Sample JEB6, a grab sample of oily soil collected adjacent to staged drums, contained Arochlor 1016 at a level of 840,000 mg/kg. Sample JEB7, a sample of oil drained from a small capacitor, contained Arochlor 1016 at a level of 810,000 mg/kg. A number of the wipe samples collected demonstrated elevated PCB levels, as well, with concentrations ranging to 1,200 micrograms per 100 square centimeters.

While the front entrance and overhead loading bay doors of the JEB building are locked, wooden panels in the overhead doors are regularly kicked in by vandals. This provides ready access to trespassers and children. In addition, sections of the building's roof are missing and external ladders along Concord Street could provide another

point of access. This ease of access provides ample opportunity for exposure to hazardous materials by both humans and animals that enter the dilapidated building.

Vandals and individuals attempting to scavenge the building for saleable scrap would be at extreme risk for direct contact exposure by PCBs. Children, trespassers, and animals entering the building could track the contamination out into the adjacent residential neighborhood upon leaving the JEB building.

During the site assessment, evidence of the presence of transient or homeless people living or seeking shelter in the building was observed. Such individuals are at severe risk of contamination through direct contact.

(iii) **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose threat of release.** Numerous drums containing oils and other liquids have been identified throughout the JEB facility. The drums range in condition from good to poor, and several are missing bungs or entire lids. In addition, a number of capacitors were observed in the building. Analytical results indicate that at least a portion of these liquids are contaminated with PCBs and others are ignitable by virtue of low flash points. As the drums and containers are not properly stored and are not securely sealed, they could be overturned, allowing the contents to spill. The numerous holes in the building's roof allow precipitation to enter in certain areas. Partially open drums stored in these areas could fill with rain water and overflow to the ground.

Hazardous chemicals spilled within the building would increase the direct contact threat to individuals and animals entering the JEB facility. The potential also exists for spilled materials to enter the drain system within the building and, thereby, migrate offsite.

(v) **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.** As previously mentioned, the integrity of the roof of the JEB building is poor. As a result, precipitation readily enters the building causing water to collect on the floors and to enter several of the drums that are open on top. The addition of this precipitation could cause drum contents to overflow and be released to the environment. In addition, the poor condition of the building exposes the drums to seasonal freeze/thaw cycles and heating by direct sunlight. Historic spills and poor housekeeping practices throughout the building have caused wood block flooring to be oil soaked and stained, and dirt and concrete floors to be saturated with oil. The introduction of rain water and snow melt to this material could cause it to be spread to other parts of the interconnected warehouses and out of the building to surrounding soils.

(vi) **Threat of fire or explosion.** Two oil samples collected from 55-gallon drums in the main JEB warehouse exhibited the characteristic of ignitability by virtue of low flash points. The liquid contents of JEB21 and JEB25 exhibited flash points of 130°F and 118°F, respectively. Both these values are below the regulatory level of 140°F. Due to this characteristic, the contents of both of these drums could readily be ignited if exposed to sparks or flames by vandals or illegal scrappers. While other material sampled did not meet the characteristic definition of ignitability, the materials would serve as fuel to sustain a fire once ignited. Because the warehouses are largely interconnected, any fire that broke out at the JEB site would spread to other warehousing areas, endangering scores of people and millions of dollars worth of property.

6. SUMMARY

Observations documented during the site assessment at the J.E. Berger Corporation indicate that the conditions at the site constitute an imminent and substantial endangerment to public health and welfare. This conclusion is based on observations by the U.S. EPA OSC and START, as well as investigative reports from state and city officials, and private individuals, as evaluated against the criteria set forth in the NCP.

Based upon analytical results from samples collected by START and U.S. EPA, observations, and information provided to START, the most substantial threats on site include ignitable and combustible chemicals stored in drums, the presence of capacitors containing PCB oils, PCB-contaminated oils stored in drums, and the presence of residual and historic spilled PCB-contaminated oils on wood block and dirt-covered concrete floor surfaces. Access to these hazardous wastes and hazardous substances is not adequately secured; thus, the facility poses a contact threat to nearby human and animal populations. The contamination within the building also poses the threat of migration to other areas of the building, the soils outside the building, and the surrounding neighborhood. The flammable material located in two of the sampled drums could readily be ignited by trespassers, vandals, or homeless people who are careless with flames or sparks. Vandals routinely strip buildings in the area of salvageable metal and wiring, often utilizing cutting torches. These scrappers could ignite the flammable materials at the JEB site through careless hot-cutting of metal.

Based on the results of the sample analyses and the site inspections, actions to remove the identified hazardous materials, including those spilled on floors and other surfaces, would be required before any further or future use could be made of the J. E. Berger property.

APPENDIX A

SITE PHOTOLOG

Site: J.E. Berger
Roll: 1 Photo: 1
Direction: West
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Loading dock entrance; note stripped vehicle, and other equipment and debris.

Site: J.E. Berger
Roll: 1 Photo: 2
Direction: Southwest
Camera: Olympus 35mm
Photographer: C.N. Gibson

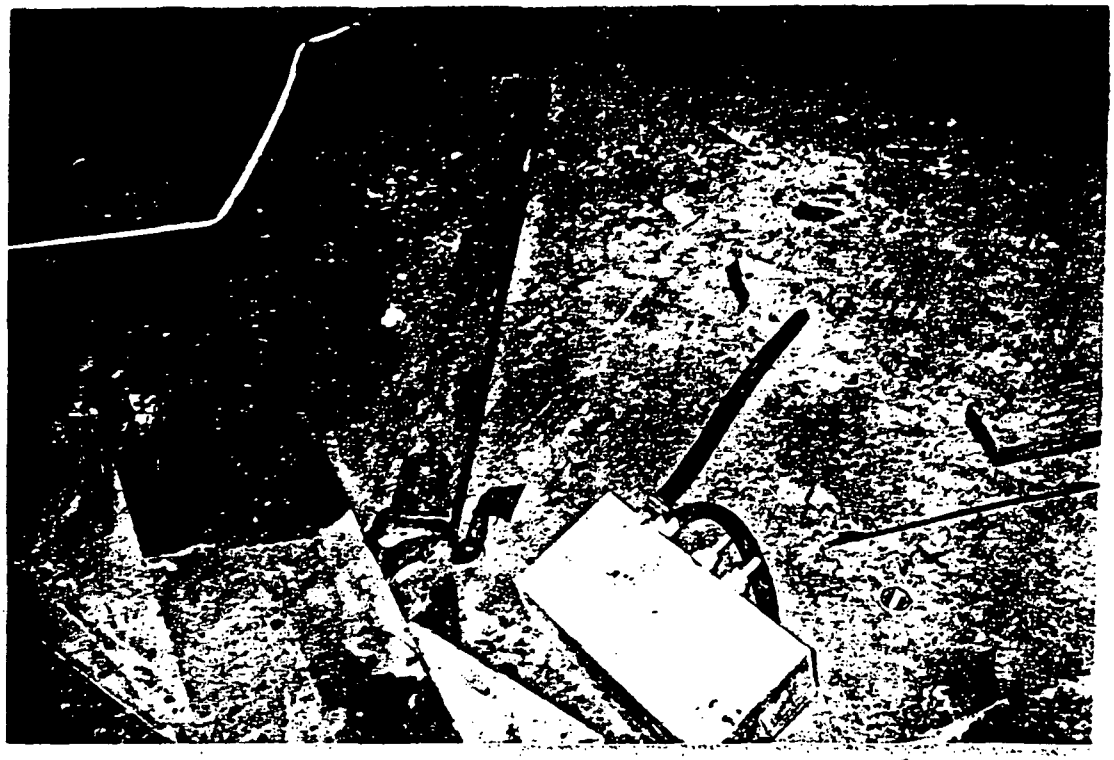
Date: April 15, 1996
Subject: Southwest corner of building near first level offices. Note kilns and 12 tanks of oxygen.

Site: J.E. Berger
Roll: 1 Photo: 4
Direction: South
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Pile of oily wooden blocks and two drums, one marked flammable.

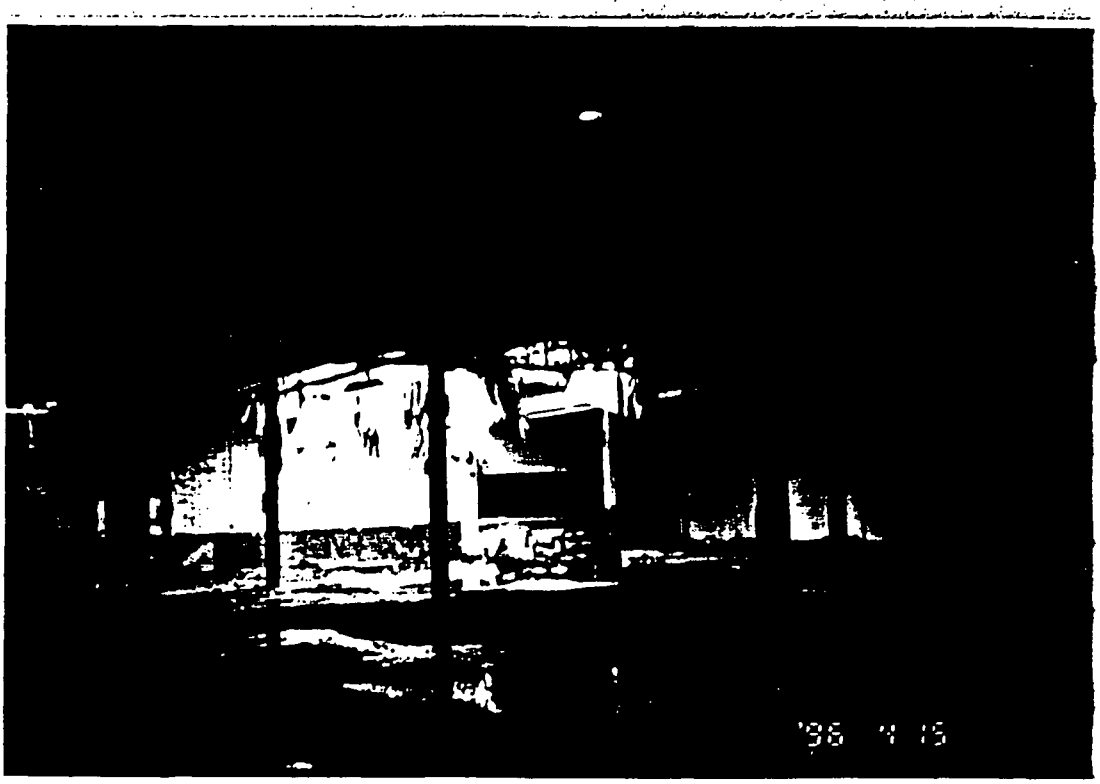
Site: J.E. Berger
Roll: 1 Photo: 6
Direction: North
Camera: Olympus 35mm

Date: April 15, 1996
Subject: Approximately 22 55-gallon drums staged in warehouse. Note oily ground from historical spills.



Site: J.E. Berger
Roll: 1 Photo: 7
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Small capacitor found next to staged drums; marked "caution PCBs".



Site: J.E. Berger
Roll: 1 Photo: 8
Direction: Southeast
Camera: Olympus 35mm

Date: April 15, 1996
Subject: View of collapsing ceiling and hole in roof. Water on floor has entered through deteriorated

Site: J.E. Berger
Roll: 1 Photo: 9
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

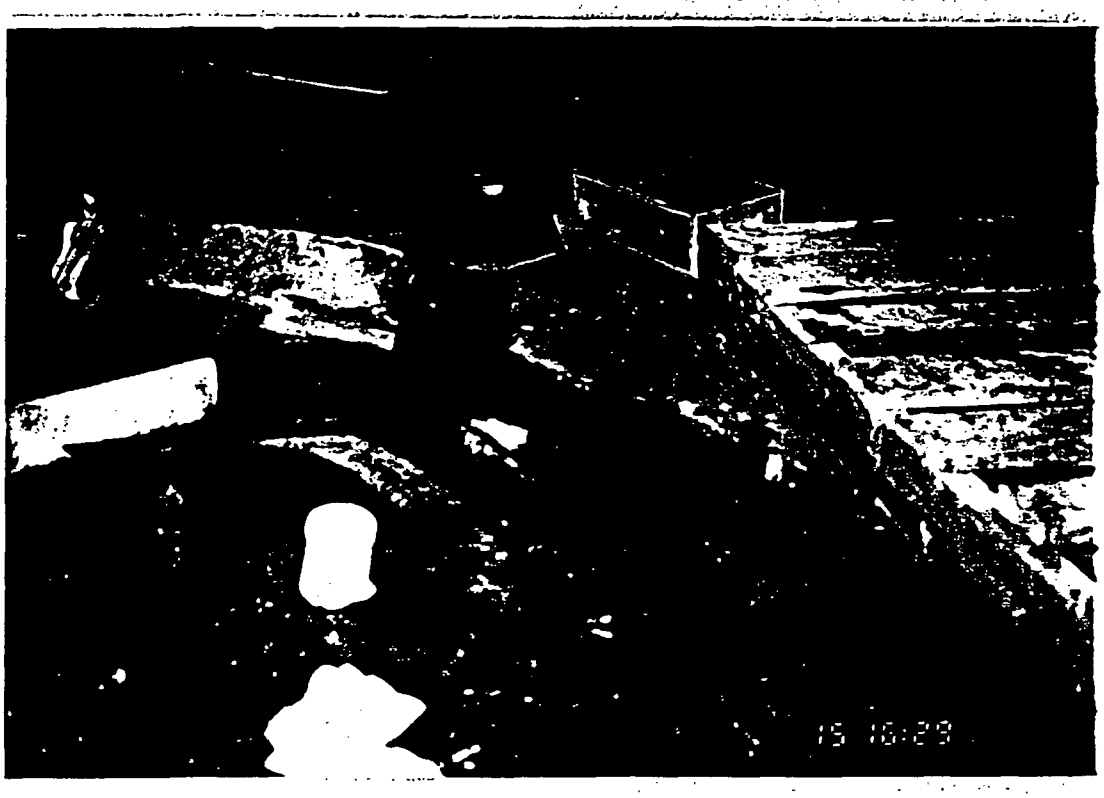
Date: April 15, 1996
Subject: Piles of wooden blocks and other debris; stairway to second and third levels of building.

Site:J.E.Berger
Roll: 1 Photo: 10
Direction: West
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Sludge on the floor of the loading dock bay area from which sample JEB1 was collected.

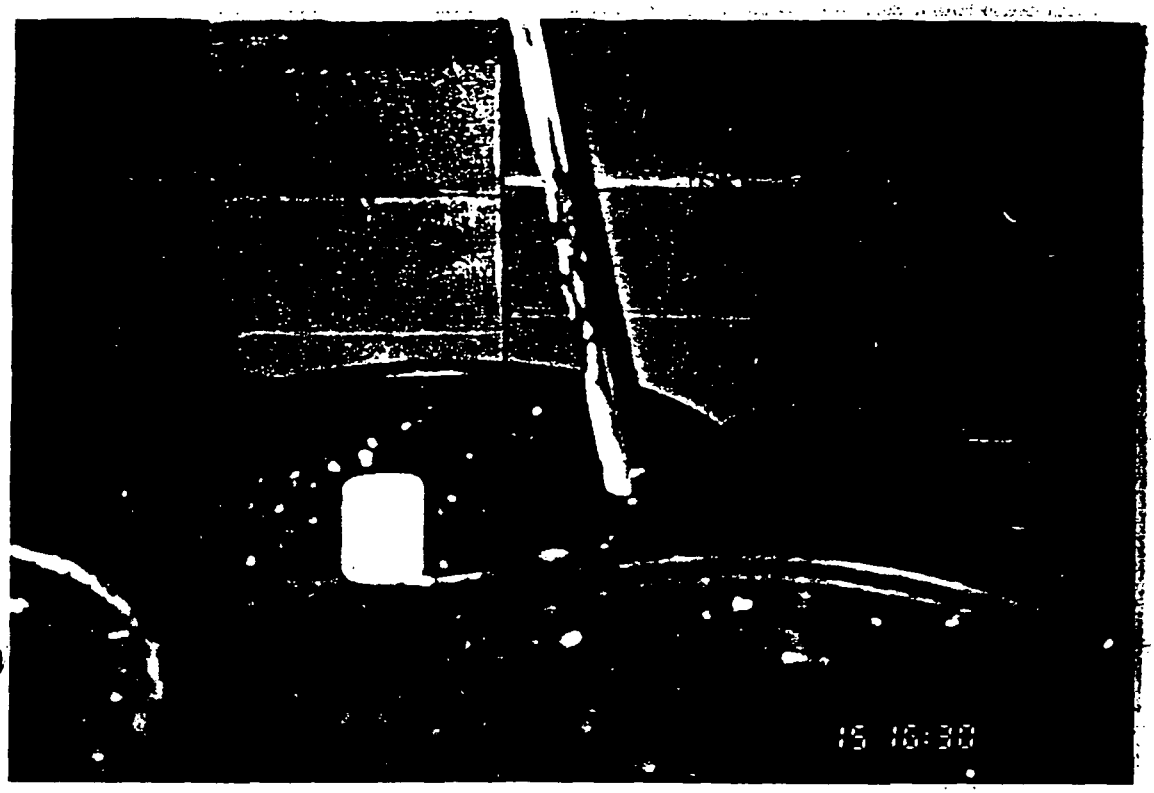
Site: J.E. Berger
Roll: 1 Photo: 11
Direction: West
Camera: Olympus 35mm
Photographer:C.N. Gibson

Date: April 15, 1996
Subject: Oil-soaked wooden block on loading dock from which sample JEB2 was collected.



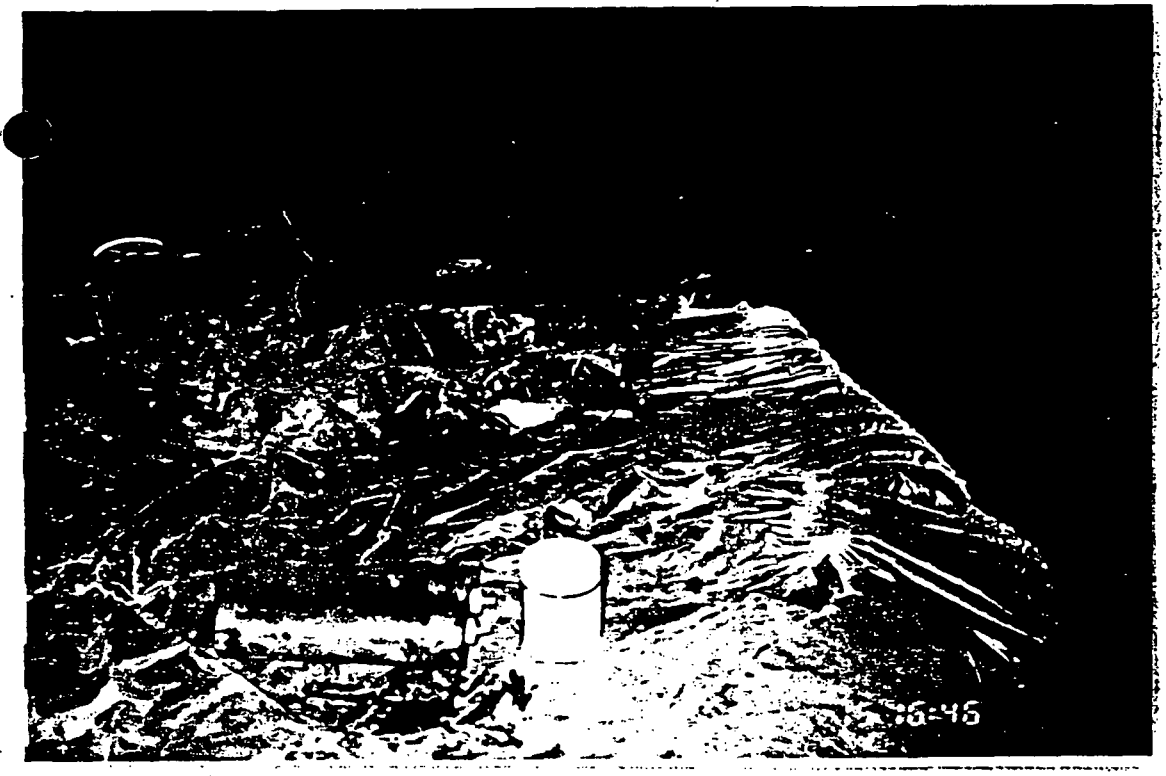
Site: J.E. Berger
Roll: 1 Photo: 15
Direction:North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Oil-soaked dirt from which sample JEB6 was collected. Note proximity of capacitor.



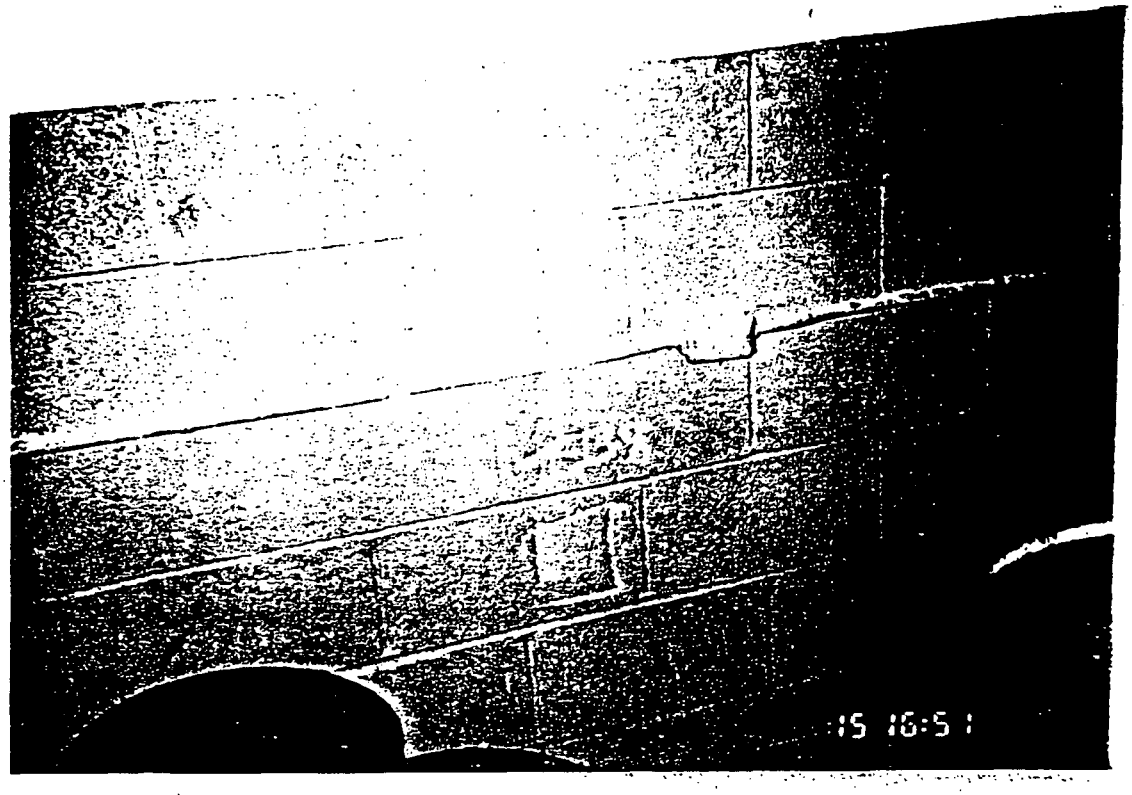
Site: J.E. Berger
Roll: 1 Photo: 16
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Staged drums along north wall. Sample JEB5 was collected from the open drum.



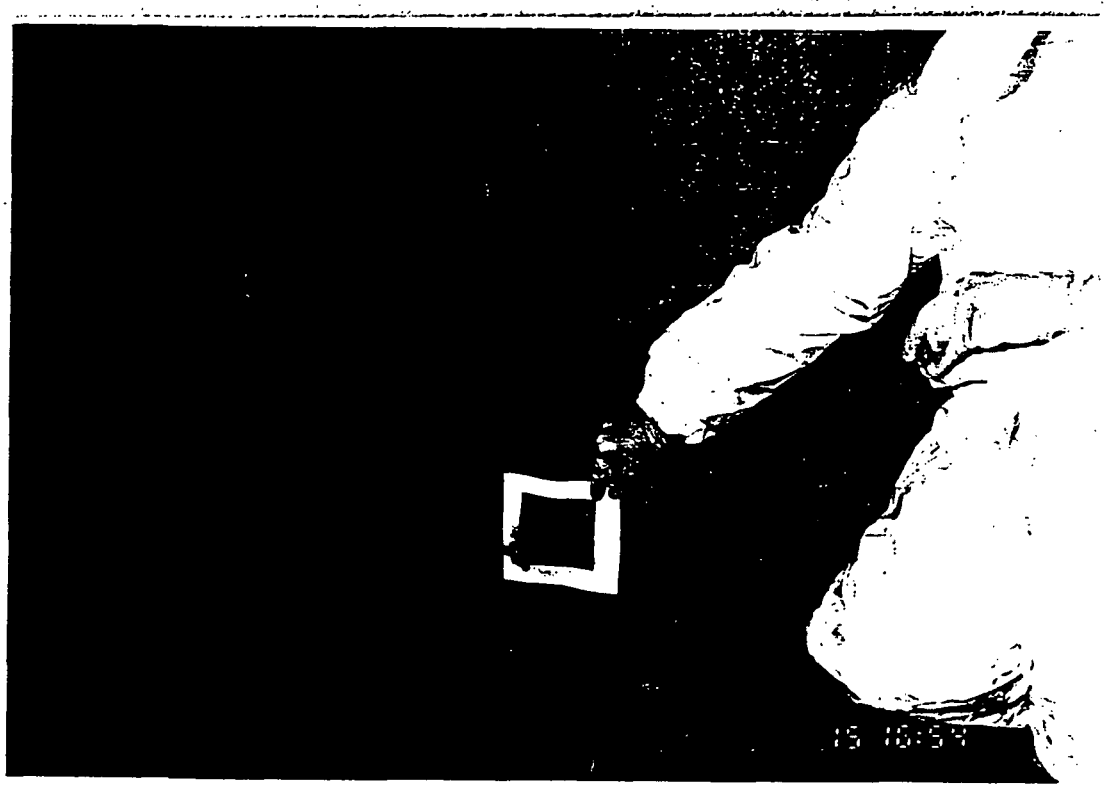
Site: J.E. Berger
Roll: 1 Photo: 17
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Capacitor found in bin near staged drums. Sample JEB7 was collected from the capacitor.



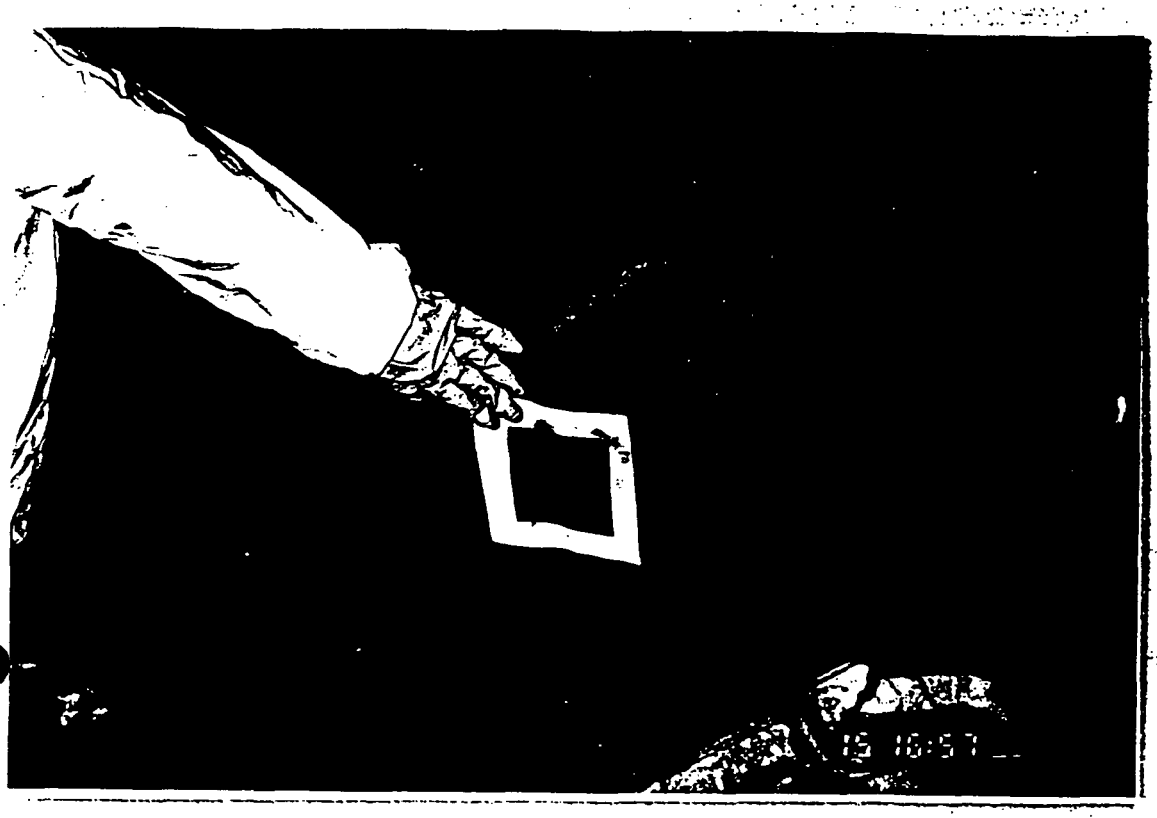
Site: J.E. Berger
Roll: 1 Photo: 18
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Northside wall by staged drums where wipe sample JEB8 was collected.



Site: J.E. Berger
Roll: 1 Photo: 19
Direction: South
Camera: Olympus 35mm
Photographer: C.N.Gibson

Date: April 15, 1996
Subject: Southern warehouse wall where wipe sample JEB9 was collected.

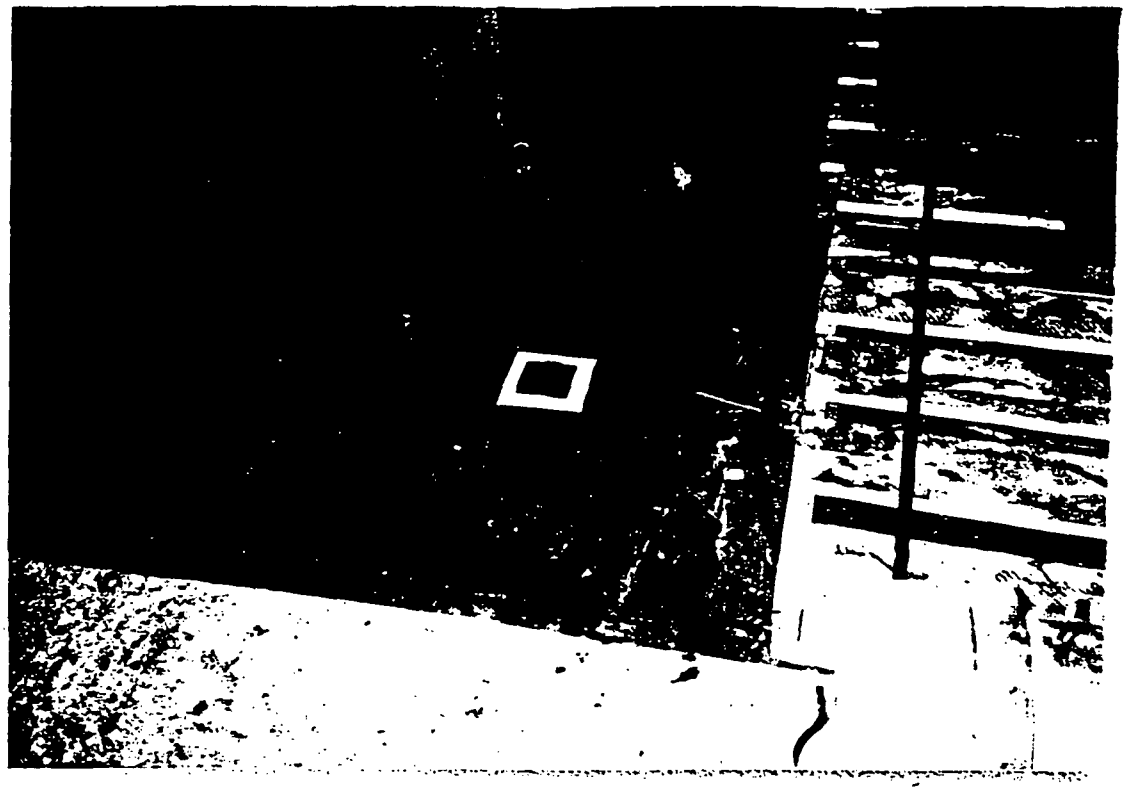


Site: J.E. Berger
Roll:1 Photo: 20
Direction: West
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: West wall near office door where wipe sample JEB10 was taken.

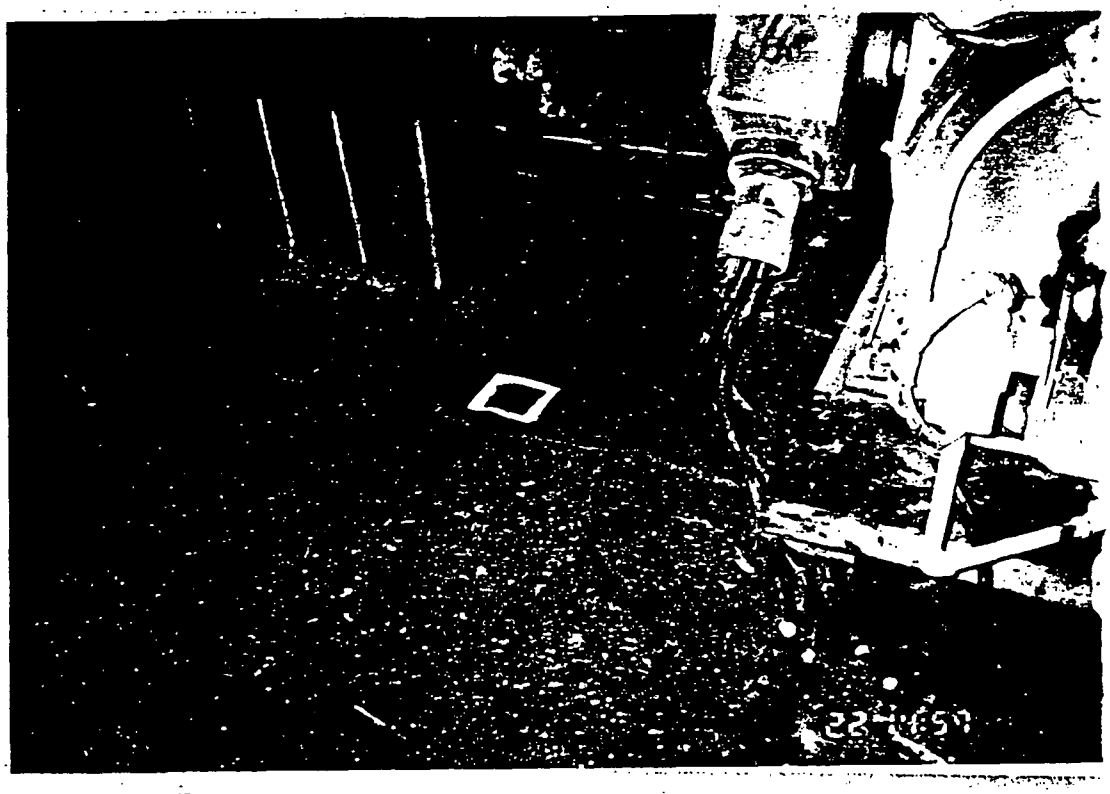
Site: J.E. Berger
Roll:1 Photo: 21
Direction: East
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 15, 1996
Subject: Loading dock drop-off (east face) where wipe sample JEB11 was taken.



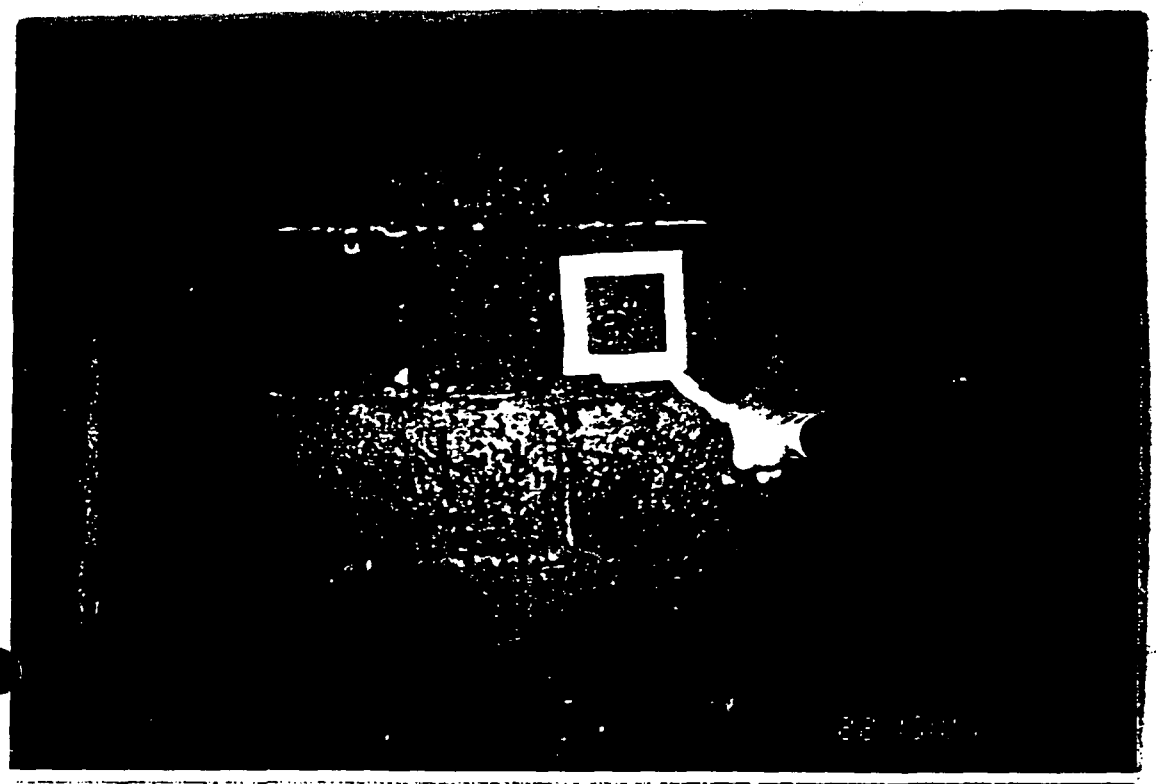
Site: J.E. Berger
Roll: 2 Photo: 1
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB12) from the north floor at the Medsker Electric Company warehouse (5309 Concord Street).



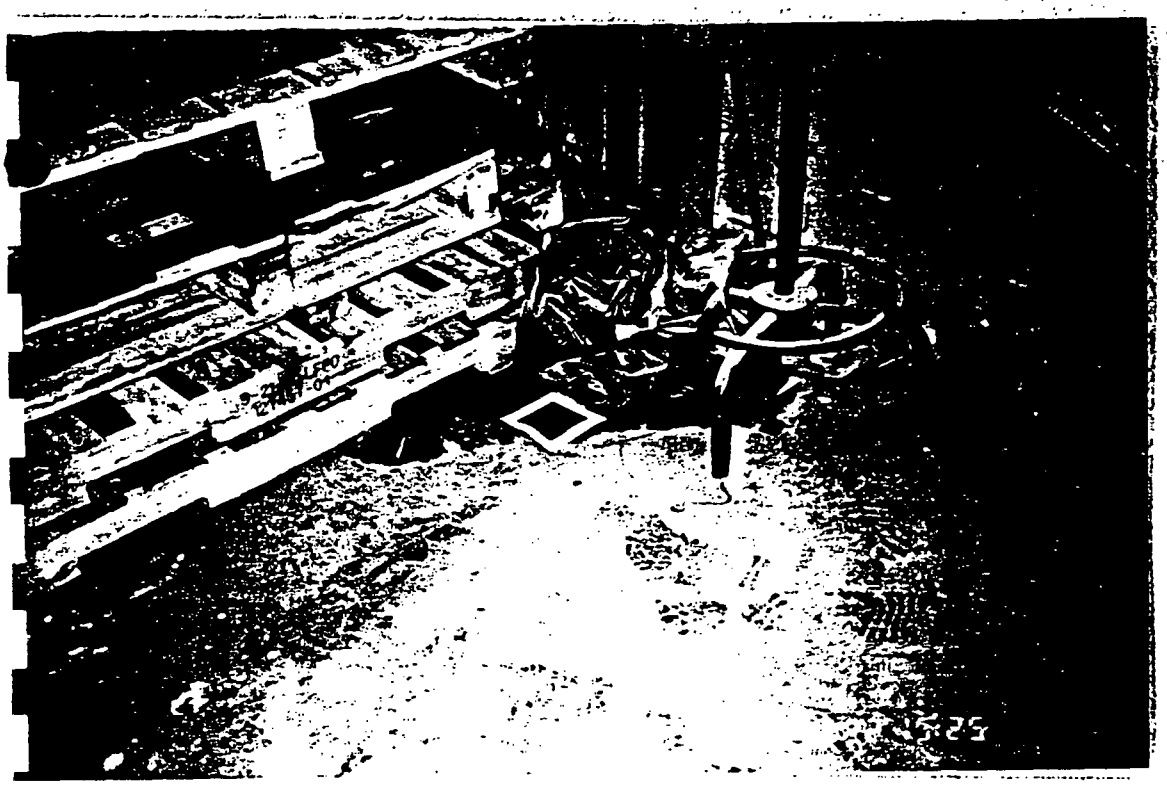
Site: J.E. Berger
Roll: 2 Photo: 2
Direction: South
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB13) taken from the south floor at the Medsker Electric Company warehouse (5309 Concord Street).



Site: J.E. Berger
Roll: 2 Photo: 3
Direction: South
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB14) taken from the south wall at the Medsker Electric Company warehouse (5309 Concord Street).



Site: J.E. Berger
Roll: 2 Photo: 4
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB15) taken from the north floor at the Detroit Reclaimed Brick warehouse (5335 Bellevue).

Site: J.E. Berger
Roll: 2 Photo: 5
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB16) taken from the north wall at the Detroit Reclaimed Brick warehouse (5335 Bellevue).

Site: J.E. Berger
Roll: 2 Photo: 6
Direction: North
Camera: Olympus 35mm
Photographer: C.N. Gibson

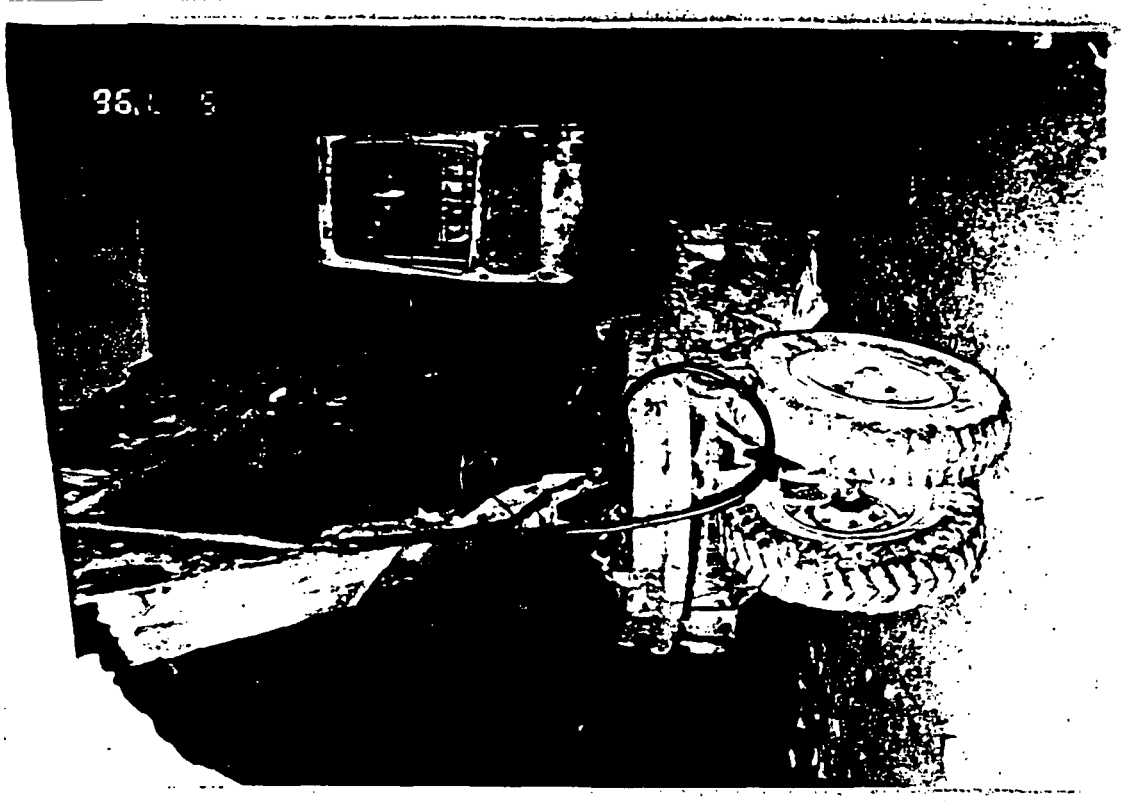
Date: April 22, 1996
Subject: Wipe sample (JEB17) taken from stained floor in the Doug Beat Electric warehouse.

Site: J.E. Berger
Roll: 2 Photo: 8
Direction: South
Camera: Olympus 35mm
Photographer: C.N. Gibson

Date: April 22, 1996
Subject: Wipe sample (JEB19) taken from the southcentral floor in the Champion Paper Company warehouse.

Site: J.E. Berger
Roll: 2 Photo: 12
Direction: East
Camera: Minolta 35mm
Photographer: C.N. Gibson

Date: May 7, 1996
Subject: Excavator and forklift in the loading dock bay area of 5300 Bellevue.

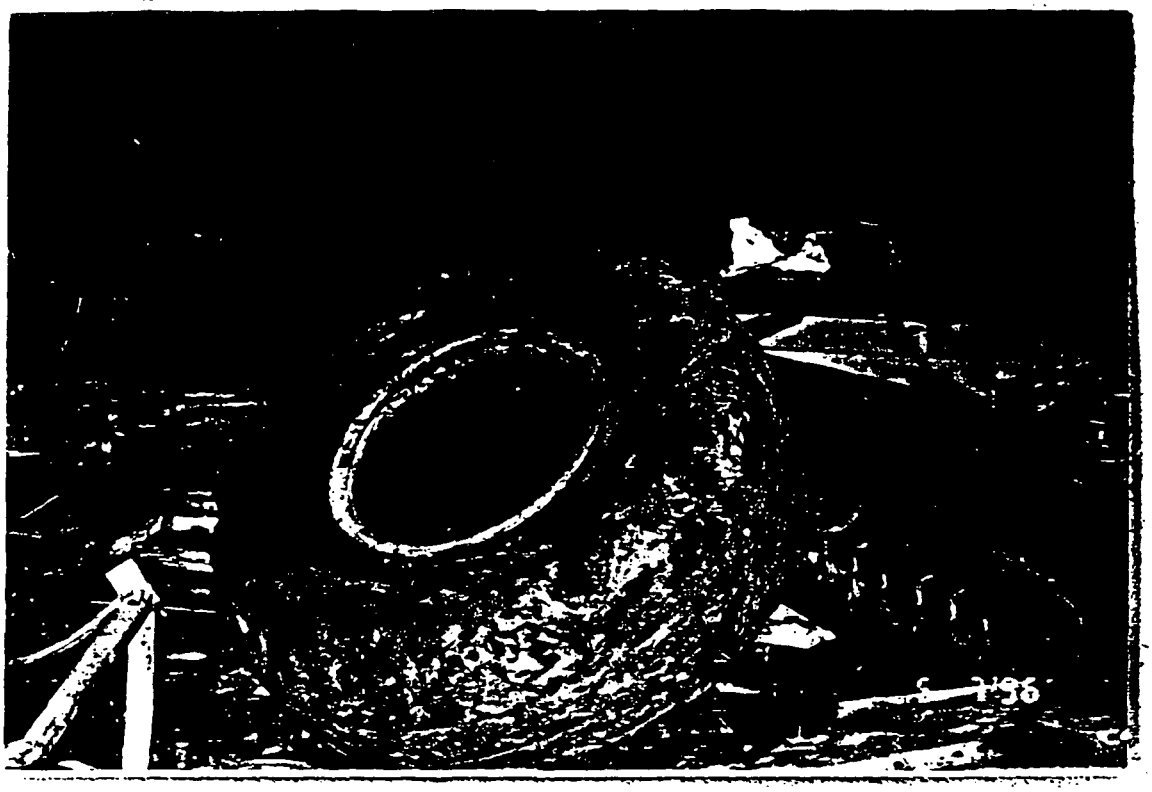


Site: J.E. Berger
Roll: 2 Photo: 14
Direction: East
Camera: Minolta 35mm
Photographer: C.N. Gibson

Date: May 7, 1996
Subject: Crane in the loading dock bay area of 5300 Bellevue.

Site: J.E. Berger
Roll: 2 Photo: 15
Direction: West
Camera: Minolta 35mm
Photographer: C.N. Gibson

Date: May 7, 1996
Subject: Semi-truck and rolloff box for moving items from the warehouse.



Site: J.E. Berger
Roll: 2 Photo: 17
Direction: East
Camera: Minolta 35mm
Photographer: C.N. Gibson

Date: May 7, 1996
Subject: Scrap tires that were to be removed from the site.

Site: J.E. Berger
Roll: 2 Photo: 19
Direction: North
Camera: Minolta 35mm
Photographer: C.N. Gibson

Date: May 7, 1996
Subject: Fuel oil storage tank on skids that was to be removed from the site.

APPENDIX B

QUALITY ASSURANCE MEMORANDA

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

MEMORANDUM

DATE: May 15, 1996

TO: File

FROM: Karen T. Smith, START Chemist, E & E, Detroit, Michigan

THROUGH: Sandra L. Basham, Assistant START Program Manager, E & E, Detroit, Michigan
David Hendren, START Quality Assurance Officer, E & E, Chicago, Illinois

SUBJECT: Volatile Organic Compound Data Quality Assurance Review, J.E. Berger, Detroit, Wayne County, Michigan

REFERENCE: Project TDD: S05-9602-023 Analytical TDD: S05-9604-813
Project PAN: 6F2301SIQ0 Analytical PAN: 6AAM01TA

The data quality assurance (QA) review of one waste-liquid sample, collected from a drum at the J.E. Berger, is complete. The sample was collected on April 22, 1996, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The sample was submitted to National Environmental Testing Laboratories, Inc., Auburn Hills, Michigan, for analysis of VOCs. The laboratory analysis was performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste-846 (SW-846) Methods 8260 for the determination of VOC concentrations.

Sample Identification

START Identification No.	Laboratory Identification No.
JEB21	199497

Data Qualifications

I. Holding Time: Acceptable

The sample was collected on April 22, 1996, and received by the laboratory on April 23, 1996. The sample was analyzed on April 30, 1996, for VOCs. Analysis was completed within the 14-day holding time specified in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01.

II. Gas Chromatography/Mass Spectrometry (GC/MS) Tuning: Acceptable

Bromofluorobenzene (BFB) performance standards were analyzed within the 12-hour time limit on the same instrument used to analyze the sample and ion abundance criteria were met.

III. Calibration:

A. Initial Calibration: Acceptable

All response factors (RFs) were greater than zero, and relative response factors (RRFs) for all parameters were at least 0.05 for the initial calibration. The percent relative standard deviations (%RSDs) were within the acceptable range of less than or equal to 30% for all target VOCs.

B. Continuing Calibration: Acceptable

All percent differences (%Ds), for all target compounds, between the initial calibration and continuing calibration were within the recommended limits of less than or equal to 25%.

IV. Internal Standards: Acceptable

All internal standard (IS) areas were within the specified limits (-50 to +100%) of the associated calibration standards. IS retention times (RTs) were within the plus-or-minus 30-second control limit.

V. Blank: Acceptable

A blank was analyzed on the same instrument and in the proper frequency. All target analytes were below reported detection limits.

VI. Compound Identification: Acceptable

All relative retention times (RRTs) were within 0.06 units of the standard RRTs.

VII. Compound Quantitation and Reported Detection Limits: Acceptable

All reported values have been correctly adjusted to reflect all dilutions.

VIII. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on the criteria outlined in the OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures; Section 5.0, Volatiles by GC/MS Analysis; and Section 2.7, Quality Assurance Requirements. Based upon the information provided, the data are acceptable for use as reported.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract-required detection limits or quality control criteria were not met.

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

MEMORANDUM

DATE: May 8, 1996

TO: File

FROM: Karen T. Smith, START Chemist, E & E, Detroit, Michigan

THROUGH: Sandra L. Basham, Assistant START Program Manager, E & E, Detroit, Michigan
David Hendren, START Quality Assurance Officer, E & E, Chicago, Illinois

SUBJECT: Polychlorinated Biphenyl (PCB) Analysis Data Quality Assurance Review, J.E. Berger, Detroit, Wayne County, Michigan

REFERENCE: Project TDD: S05-9602-023 Analytical TDD: S05-9602-813
Project PAN: 6F2301SIQ0 Analytical PAN: 6FAM01TA

The data quality assurance (QA) review of five waste-solid, two waste-oil, and four wipe samples, collected from floors, walls, drums, and a capacitor at the J.E. Berger site, is complete. Samples were collected on April 15, 1996, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). Samples were submitted to Heritage Environmental Services, Inc., Romeoville, Illinois, for analysis of PCBs. The laboratory analysis was performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste-846 (SW-846) Method 8080 for the determination of PCB concentrations.

Sample Identification

START Identification No.	Laboratory Identification No.
JEB1	C177268
JEB2	C177269
JEB3	C177270
JEB4	C177271
JEB5	C177272
JEB6	C177273
JEB7	C177274
JEB8	C177275
JEB9	C177276
JEB10	C177277
JEB11	C177278

I. Holding Time: Acceptable

Samples were collected on April 15, 1996, and received by the laboratory on April 17, 1996. Samples were extracted on April 18 and 19, 1996, and analyzed on April 19 and 20, 1996. The analysis was completed within the 14 days from collection to extraction and 40 days from extraction to analysis holding time specified in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01.

II. Instrument Performance: Acceptable

All raw chromatograms were reviewed for adequate peak resolution, and all had adequate resolution between peaks of each Aroclor standard. The retention time windows for the sample and check calibration standards were reported and compared to the standard chromatograms for agreement.

III. Calibration:

A. Initial Calibration: Qualified

Calibrations were performed for Aroclors 1016, 1242, 1248, and 1260. The laboratory did not provide initial calibrations for Aroclors 1221, 1232, 1254, and 1262. In accordance with the OSWER Directive, all reported sample results for Aroclors 1221, 1232, 1254, and 1262 have been flagged "J", as estimated. Only Aroclor 1260 had a percent relative standard deviation (%RSD) of less than or equal to 10%. Per the OSWER Directive, all reported positive results for Aroclors 1016, 1242, and 1248 have been flagged "J", as estimated.

B. Continuing Calibration: Qualified

Continuing calibrations were performed with Aroclors 1016, 1221, 1232, 1242, 1254, 1260 and 1262. In accordance with the OSWER Directive, all associated data for Aroclor 1248 has been flagged "J", as estimated. Percent differences (%Ds) for all other Aroclors were less than or equal to 15%.

IV. Method Blank: Acceptable

Method blanks were analyzed on each day in the proper sequence, and all target compounds were below the instrument detection limits.

V. Compound Identification: Acceptable

Sample chromatograms were compared with standard chromatograms and all of the sample chromatograms appeared to have one or more of the fingerprint patterns for reported Aroclors.

VI. Compound Quantitation and Reported Detection Limits: Acceptable

All reported values have been correctly adjusted to reflect dilutions.

VII. Overall Assessment of Data: Acceptable

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures; Section 7.0, PCBs; and Section 2.7, Quality Assurance Requirements. Based upon the information provided, the data are acceptable for use as reported, with the above stated qualifications.

Data Qualifiers and Definitions

J The associated numerical value is an estimated quantity because the reported concentrations were less than the required detection limits or quality control criteria were not met.

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

MEMORANDUM

DATE: May 15, 1996

TO: File

FROM: Karen T. Smith, START Chemist, E & E, Detroit, Michigan

THROUGH: SLB Sandra L. Basham, Assistant START Program Manager, E & E, Detroit, Michigan
David Hendren, START Quality Assurance Officer, E & E, Chicago, Illinois

SUBJECT: Semivolatile Organic Compound Data Quality Assurance Review, J.E. Berger, Detroit, Wayne County, Michigan

REFERENCE: Project TDD: S05-9602-023 Analytical TDD: S05-9604-813
Project PAN: 6F2301SIQ0 Analytical PAN: 6AAM01TA

The data quality assurance (QA) review of one waste-oil sample, collected from a drum at the J.E. Berger site, is complete. The sample was collected on April 22, 1996, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The sample was submitted to National Environmental Testing Laboratories, Inc., Auburn Hills, Michigan, for analysis of semivolatile organic compounds (SVOCs). The laboratory analysis was performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste-846 (SW-846) Method 8270 for the determination of SVOC concentrations.

Sample Identification

START Identification No.	Laboratory Identification No.
JEB24	199498

Data Qualifications

I. Holding Time: Acceptable

The sample was collected on April 22, 1996, and received by the laboratory on April 23, 1996. The sample was extracted and analyzed on May 5, 1996, for SVOCs. Analysis was completed within the 14 days from collection to extraction and 40 days from extraction to analysis holding times specified in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01.

II. Gas Chromatography/Mass Spectrometry (GC/MS) Tuning: Acceptable

Decafluorotriphenylphosphine (DFTPP) standards were analyzed within the required 12-hour time limit for all sample analyses on the same instrument used to analyze the samples, and the ion abundance criteria were met for each DFTPP standard.

III. Calibration:

A. Initial Calibration: Acceptable

All response factors (RFs) were greater than zero, and relative response factors (RRFs) for all parameters were at least 0.05 for the initial calibration. The percent relative standard deviations (%RSDs) were within the acceptable range of less than or equal to 30% for all SVOCs, except for 2,4-dinitrophenol, benzidine, benzo[g,h,i]perylene, and benzoic acid. None of the reported sample results were positive for these compounds; thus, no action was taken.

B. Continuing Calibration: Acceptable

All percent differences (%Ds) between the initial calibration and continuing calibration were within the recommended limits of less than or equal to 25% for all target SVOCs.

IV. Internal Standards: Qualified

All internal standard (IS) areas were within the specified limits (-50 to +100%) of the associated calibration standards, except for cyrysene-d_{12} and perylene-d_{12}. All reported sample results for associated sample fractions have been flagged "J", as estimated. IS retention times (RTs) were within the plus-or-minus 30-second control limit.

V. Blank: Acceptable

A blank was analyzed on the same instrument and in the proper frequency. All target analytes were below the instrument detection limits.

VI. Compound Identification: Acceptable

All relative retention times (RRTs) were within 0.06 units of the standard RRTs.

VII. Compound Quantitation and Reported Detection Limits: Acceptable

All reported values have been correctly adjusted to reflect all dilutions.

VIII. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on the criteria outlined in the OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures; Section 4.0, BNAs by GC/MS Analysis; and Section 2.7, Quality Assurance Requirements. Based upon the information provided, the data are acceptable for use as reported, with the above qualifications.

Data Qualifiers and Definitions

J The associated numerical value is an estimated quantity because the reported concentrations were less than the contract-required detection limits or quality control criteria were not met.

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

MEMORANDUM

DATE: May 15, 1996

TO: File

FROM: Karen T. Smith, START Chemist, E & E, Detroit, Michigan

THROUGH: SLB Sandra L. Basham, Assistant START Program Manager, E & E, Detroit, Michigan
David Hendren, START Quality Assurance Officer, E & E, Chicago, Illinois

SUBJECT: Total Resource Conservation and Recovery Act (RCRA) and Toxicity Characteristic Leaching Procedure (TCLP) Metals Data Quality Assurance Review, J.E. Berger, Detroit, Wayne County, Michigan

REFERENCE: Project TDD: S05-9602-023 Analytical TDD: S05-9604-813
Project PAN: 6F2301SIQ0 Analytical PAN: 6AAM01TA

The data quality assurance (QA) review of three waste-oil and one waste-liquid samples, collected from drums and a bucket at the J.E. Berger site, is complete. Samples were collected on April 22, 1996, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). Samples were submitted to National Environmental Testing Laboratories, Inc., Auburn Hills, Michigan, for total RCRA and TCLP metals analyses. The laboratory analyses were performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste-846 (SW-846) Methods 1311, and 6000-7000 series for the determination of total RCRA and TCLP metal concentrations.

Sample Identification

START Identification No.	Laboratory Identification No.
JEB21	199497
JEB24	199498
JEB27	199517
JEB28	199511

Data Qualifications

I. Holding Time: Acceptable

Samples were collected on April 22, 1996, and received by the laboratory on April 23, 1996. Samples were extracted from April 30 through May 2, 1996, and analyzed on May 2 and 3, 1996. All analyses were completed within the holding times specified in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01; 6 months for metals, 14 days for cyanide, and 28 days for mercury.

II. Calibration:

A. Initial Calibration: Acceptable

Initial calibrations were within the recommended limits of 90 to 110% for metals, and 80 to 120% for mercury.

B. Continuing Calibration: Acceptable

A calibration standard was analyzed at the beginning of the analytical run and repeated after every 10 samples for each day of analysis for the metals.

III. Method Blanks: Acceptable

Method blanks and preparation blanks were analyzed with the samples. All analyte concentrations were below instrument detection limits.

IV. Inductively Coupled Plasma (ICP) Interference Check Samples: Acceptable

All ICP interference check samples were within 20% of the mean values. An ICP interference check sample was analyzed at both the beginning and the end of the sample run.

V. Performance Evaluation Samples: Not Performed

This evaluation was not required to be performed by the laboratory according to OSWER Directive 9360.4-01.

VI. Additional QC Checks: Not Evaluated

No additional QC checks were performed.

VII. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on the criteria outlined in the OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures;

Section 3.0, Metallic Inorganic Parameters; and Section 2.7, Quality Assurance Requirements. Based upon the information provided, the data are acceptable for use as reported.

ecology and environment, inc.
12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

MEMORANDUM

DATE: May 15, 1996

TO: File

FROM: Karen T. Smith, START Chemist, E & E, Detroit, Michigan

THROUGH: SLB Sandra L. Basham, Assistant START Program Manager, E & E, Detroit, Michigan
David Hendren, START Quality Assurance Officer, E & E, Chicago, Illinois

SUBJECT: Miscellaneous Analytical Data Quality Assurance Review, J.E. Berger, Detroit, Wayne County, Michigan

REFERENCE: Project TDD: S05-9602-023 Analytical TDD: S05-9604-813
Project PAN: 6F2301SIQ0 Analytical PAN: 6AAM01TA

The data quality assurance (QA) review of one waste-liquid and four waste-oil samples, collected from drums and a bucket at the J.E. Berger site, is complete. Samples were collected on April 22, 1996, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). All samples were submitted to National Environmental Testing Laboratories, Inc., Auburn Hills, Michigan. All samples were analyzed for flash point. The laboratory analysis was performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste-846 (SW-846) Method 1010 for the determination of flash point.

Sample Identification

START Identification No.	Laboratory Identification No.
JEB21	199497
JEB23	199512 top
JEB23	199513 bottom
JEB24	199498
JEB25	199514 top
JEB25	199515 bottom
JEB27	199516 top
JEB27	199517 bottom
JEB28	199511

Data Qualifications

I. Holding Time: Acceptable

Samples were collected on April 22, 1996, and received by the laboratory on April 23, 1996. Samples were analyzed on May 3, 1996. The Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 does not specify specific holding times for flash point analysis, but the method recommends that the analysis be completed immediately after collection. Samples were collected and stored in closed glass containers, and in this reviewer's professional judgement, sample integrity was not compromised.

II. Calibration:

A. Initial Calibration: Acceptable

Flash point calibration was determined by analyzing butanol as a calibration standard (CS). The true flash point of the CS is 97°F and the actual flash was within plus or minus 2 degrees.

B. Continuing Calibration: Not Applicable

A continuing calibration was not necessary since the samples were analyzed immediately following the instrument calibration.

III. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on the criteria outlined in the OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures; Section 9.0, Non-Metal Inorganic Parameters; and Section 2.7, Quality Assurance Requirements. Based upon the information provided, the data are acceptable for use as reported.